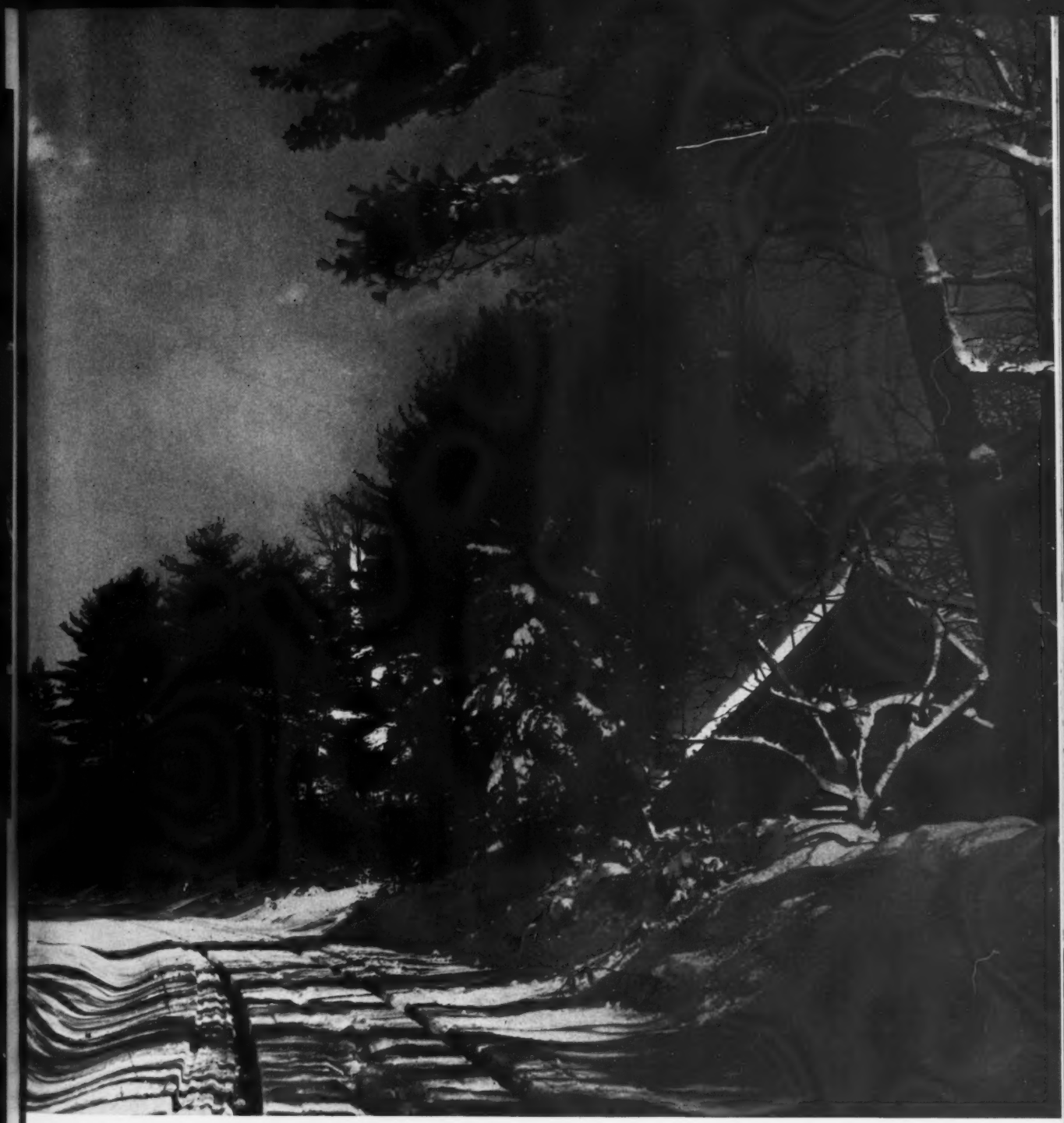
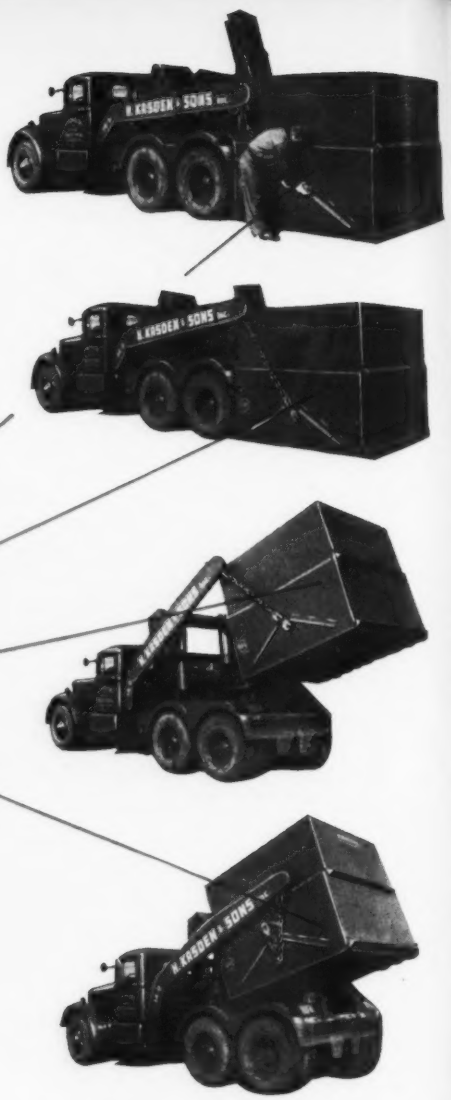


Connecticut INDUSTRY

MARCH 1954

TEN TONS
OF SCRAP METAL
REMOVED
IN LESS THAN
TEN MINUTES



A·P· CONTROL

Another innovation by H. Kasden & Sons, Inc. developed to meet today's urgent need for scrap.

A demonstration of our A.P. Control equipment will give you convincing proof of what our facilities will mean in savings to you.

Write for FREE FOLDER that tells the whole story!

You gain with A.P. Control because:
It's Faster!
Offers Greater Economy!
Saves Manhours!
Avoids unsightly scrap mounds!
Stops Waste!
Eliminates unnecessary scrap handling!

INSTALLED AT NO COST TO YOU!

SCRAP IRON STEEL METALS

H. KASDEN & SONS INC.

2-44 LLOYD ST., NEW HAVEN, CONN.

ONE OF NEW ENGLAND'S LARGEST, MOST MODERN SCRAP PROCESSING PLANTS

Connecticut INDUSTRY

MANUFACTURERS' ASSOCIATION OF CONNECTICUT, INC.

VOL. 32 - NO. 3 - MARCH 1954

L. M. BINGHAM, *Editor*

IN THIS ISSUE

	Page
Editorial	5
Centennial at Malleable Iron Fittings Company	6
The J. L. Lucas Story	9
Education and Industry Co-sponsor Career Days in Bristol	11
Revere Corporation Opens New Thermal Harness Plant in Meriden	12
Report on West German Progress	14
Combating the Effects of Noise	17
New Council Seeks to Improve Economic Education in Connecticut Schools	19
News Forum	23
Industrial Relations—Law	43
Business Tips	45
Spotlight on the Future	49
Accounting Hints	51
Connecticut Advertising Services	52
It's Made In Connecticut	53
Advertising Index	64

OFFICERS

E. B. SHAW ..... *President*
ALBERT S. REDWAY ..... *Vice President*
HARRISON FULLER ..... *Vice President*
N. W. FORD ..... *Executive Vice President*
JOHN COOLIDGE ..... *Treasurer*
L. M. BINGHAM ..... *Secretary*

ADMINISTRATIVE STAFF

N. W. FORD ..... *Executive Vice President*
L. M. BINGHAM .. *Sec. and Dir. of Development*
FREDRICK H. WATERHOUSE ..... *Counsel*
CHARLES H. SCHREYER ..... *Attorney*
N. MAARSCHALK ... *Traffic and Export Manager*
ARTHUR L. WOODS ..... *Executive Assistant*

DEPARTMENTAL STAFF

RUTH C. JOHNSON — MILDRED H. FORSELL
KATHERINE M. EDGERTON — FRANCES W. WILKINSON
MARGARET M. MOORE — MARILYN N. PEASE
FLORENCE E. KRUK — DORIS M. DWYER
VINCENT D. CASTAGNO — MARION E. ROBINSON

DIRECTORS

ROBERT L. NOBLE ..... *Winsted*
ROBERT J. STARR ..... *East Hampton*
R. LELAND KEENEY ..... *Somersville*
WALTER E. TURNER ..... *Norwich*
GEORGE H. REAMA ..... *Willimantic*
A. F. MURRAY ..... *Old Greenwich*
HENRY H. LYMAN ..... *Middlefield*
W. L. SORENSON ..... *Stafford Springs*
DONALD C. COTTRELL ..... *Pawcatuck*
W. L. HUBBARD ..... *Stamford*
P. B. WATSON ..... *Wallingford*
CARLYLE F. BARNES ..... *Bristol*
S. M. COOPER ..... *New Britain*
E. M. JACK ..... *Torrington*
N. M. MARSILIUS ..... *Bridgeport*
A. V. BODINE ..... *Bridgeport*
HENRY S. WOODBRIDGE ..... *Putnam*
SHERMAN R. KNAPP ..... *Berlin*
GEORGE R. HOLMES ..... *New Haven*
JOHN A. COE, JR. ..... *Waterbury*
LOUIS R. RIPLEY ..... *Danbury*

Published monthly by the Manufacturers' Association of Connecticut, Inc., with executive offices at 928 Farmington Avenue, West Hartford, Connecticut. Entered as second-class matter January 29, 1929, at the post office at Hartford, Connecticut, under the Act of March 3, 1879. As the official magazine of the Manufacturers' Association of Connecticut, Inc., it carries authoritative articles and notices concerning the Association activities. In all other respects the Association is not responsible for the contents and for the opinion of its writers. Subscription rates: one year $2.50; 25¢ a copy. Subscribers should notify publisher promptly of changes in address. Advertising rates on application.

DOWD WYLLIE & OLSON INC.

PHOTO ENGRAVING
ADVERTISING ART

Since 1913

106 ANN ST • HARTFORD, CONN.

Are You Looking For a Sub-Contract?

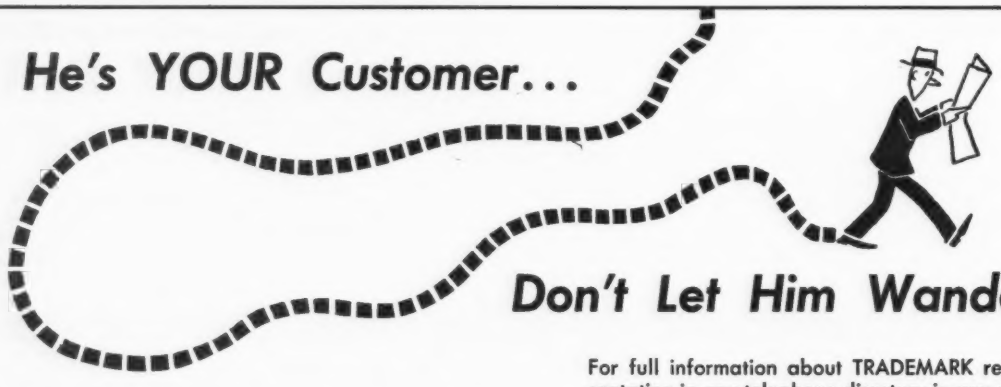
If you are, an advertising message published regularly each month in CONNECTICUT INDUSTRY, telling of your facilities and skills, should help your personal and direct mail efforts to secure some sub-contracts from the prime contractors in this state—the majority of whom are readers of this magazine.

Closing date for copy is the first of each month preceding the month of issue. Write today for our low-cost advertising rates.

CONNECTICUT INDUSTRY

928 Farmington Ave., West Hartford, Conn.

He's YOUR Customer...



Don't Let Him Wander

Be sure he can find the dealers who handle YOUR product through having them listed under your TRADEMARK in the YELLOW PAGES of his local telephone directory.

For full information about TRADEMARK representation in any telephone directory in any area of the state or nation — wherever your dealers are located — just ask your local telephone business office to have a Trademark Representative get in touch with you.

9 OUT OF 10 PEOPLE USE THE YELLOW PAGES AS A BUYING GUIDE

THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY

OWNED AND OPERATED BY AND FOR CONNECTICUT PEOPLE

No Room For Guess Work

By: L. R. RIPLEY, *President*

Heli-Coil Corporation, Danbury, Connecticut

Two categories of industry in Connecticut are not meeting the challenge of growing competition from other manufacturing areas: (1) the small and timid, and (2) the big and tired.

You need not look far to find examples of either. Here is the infant company that as yet lacks the skill necessary to refine its product or to sell it effectively. Here is the large and ancient company that lumbers along on the strength of the founder's inventiveness and the timeworn loyalty of its customers.

Yet we all have seen companies blossom forth from the doldrums of such circumstances to capture their markets—not only to wrest leadership from their out-of-state competitors, but to soar to unprecedented levels of business and penetrate markets previously untapped.

How do they do it?

There are many complicated formulae, none of which are guaranteed. But there is one simple rule which consistently bears fruit, and it may be expressed in one word: RESEARCH.

It Opens New Vistas

A modest investment in research can often-times turn a "sow's ear" product into a "silk purse." In the early days of my company, our product—a wire coil for strengthening screw thread connections—was suited only to special aircraft threads.

A minimum of research indicated that through simple design change the coil could be used to improve all *standard* threads. We made a quick market study, got encouraging answers . . . and made the change. Results were immediate.

Today we are rated as leaders in the thread fastening field, and our product is found in all kinds of materials in all manner of industrial and consumer goods.

Two Places to Begin

There are two principal areas of research. The first of these is obvious: the product. Improve it and you improve your chances for leadership in your field. (Incidentally, improving the product can include improving its price tag, not alone by design change, but by technological advancement in your manufacturing methods.)

The second area, the market, is not given sufficient importance by some Yankee manufacturers who have been brought up in the tradition of "build a better mousetrap." Better abandon that old saw. It won't cut wood today. To best your competition these days you have to know what can be sold, and where, and when, and to whom; and how it should be packaged and presented.

These answers don't descend from heaven like manna. You have to track them down by sifting through a welter of data; by using modern yardsticks instead of guess-and-by gosh methods of plotting the sales course.

The Organized Approach

A product research program can be instituted economically in several ways:

A. Set up a full or part-time assignment for one or more capable in-plant people. Or if you cannot afford solid blocks of talent time,

B. Appoint an in-plant committee having regular meetings and specific assignments that can be completed in conjunction with their normal duties. Or, lacking such in-plant time (or talent) entirely,

C. Call in a professional consulting service. Under this plan, experienced research engineers analyze the product—or the production line—and come up with answers that your own people may miss entirely. Sometimes you *can't* see the trees for the forest.

Researching your markets is usually a job for specialists outside the plant, although it has been done successfully from the inside by some. In most cases the tendency is to think only in terms of the familiar, and if you are presently selling along narrow vertical or horizontal lines, chances are you will find yourself plowing the furrows of yesterday.

Bolstering the Sales Curve

The bulk of our sales for some time have been to the original equipment field. When the first omens of a business turn-down were heard over a year ago, key people in our company were called together to contribute ideas on how we might offset the effects of a decline. A number of admittedly unqualified suggestions were brought forth.

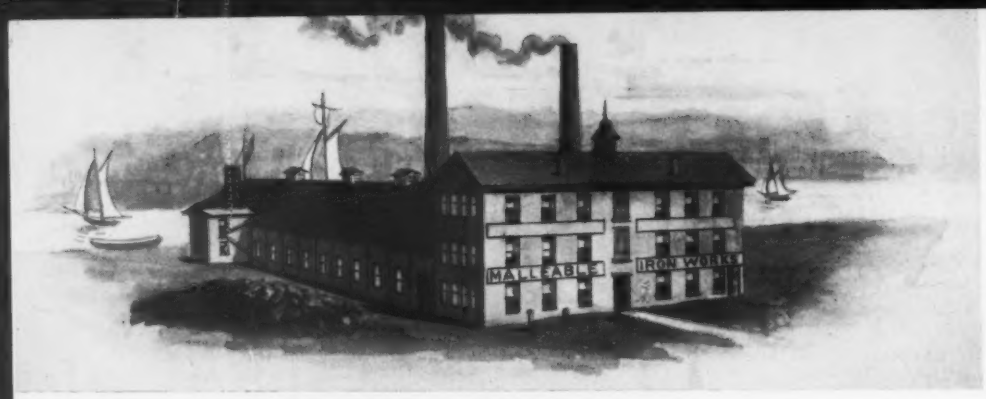
If manufacturers using our product were facing a sales dip, why shouldn't we immediately develop a thread repair market? In this way we could sell to end users who, instead of buying new equipment, would be making present devices last longer.

Rather than go by guesswork, we employed an outside source to study the situation. Within weeks we had our answers, thanks to organized research. The repair markets were there, and could be classified in A-B-C order as to potential.

We have already launched the "A" phase of our repair market program, and phase "B" is under way on a limited scale.

How long will it be before we see results? Not long at all. We have tangible evidence that we have "researched" a ripe plum—one that may grow fatter than our original fruitful market, and permit us to flourish in spite of peaks or valleys on the business graph. *(Continued on page 41)*

* *Mr. Ripley, the author of this month's guest editorial, is a graduate of Babson Institute, former president of the United Cinephone Corporation; and director of Heli-Coil Corporation of California; vice president and director of Premmco, Inc., Los Angeles; and director of Danbury Community Chest. He began serving a four-year term as director of MAC in January.*



THE ORIGINAL PLANT of the Malleable Iron Works.

T. F. HAMMER, the 1st, founder of the company.

CENTENNIAL AT *Malleable Iron Fittings* COMPANY

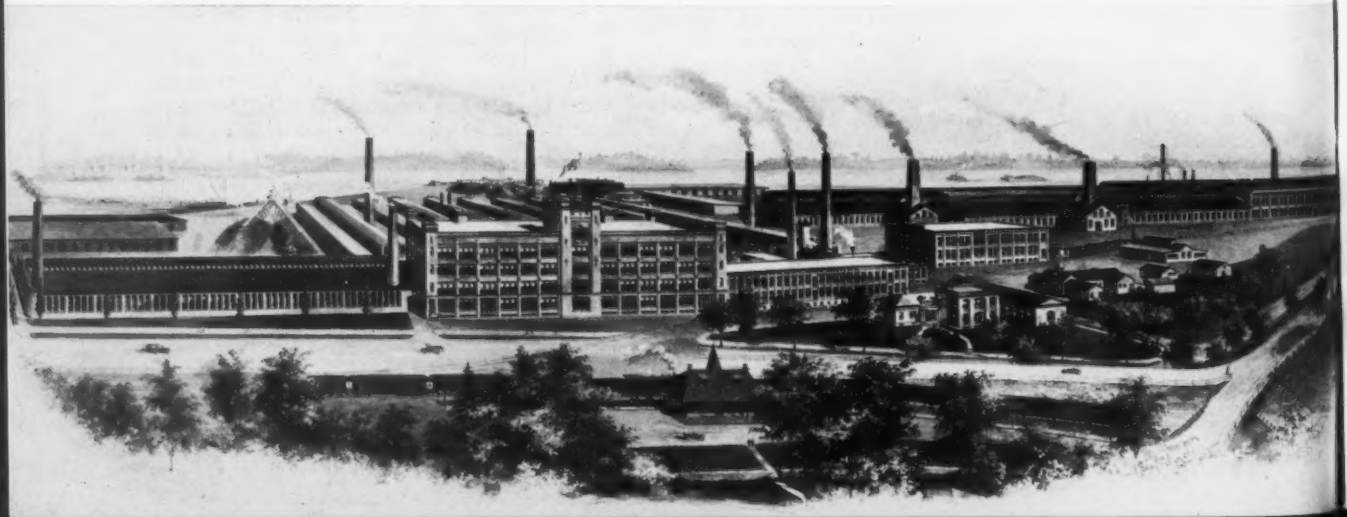
It was on the second day of October 1854 that Messrs. Hadley and Rogers signed, at Branford, Connecticut, the "Articles of Association of Totoket Company, a joint body politic and corporate." Its purpose was "the manufacture of hardware and other goods from wrought, cast and malleable iron, scrap and other metals and materials. The buying and selling of real estate and merchandiz and such other property as may be necessary for the interest of a successful manufacturing business." The amount invested was sixteen thousand hard yankee dollars.

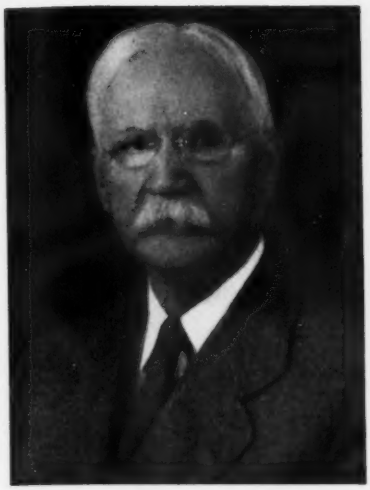
Totoket was the original name of Branford, a town situated a few miles east of New Haven. It is a colonial town, founded in 1635 about a central green, or "God's Acre," where was to stand the first church. It is noted not only as the original site of Yale College, but also of the first iron works in Connecticut. Thus did New England parsons, teachers and artisans move forward together. We know of the founders as Puritans who, being religious and political refugees, landed on these shores seeking the right to enjoy new freedoms of work and of worship.

Code of the Founders

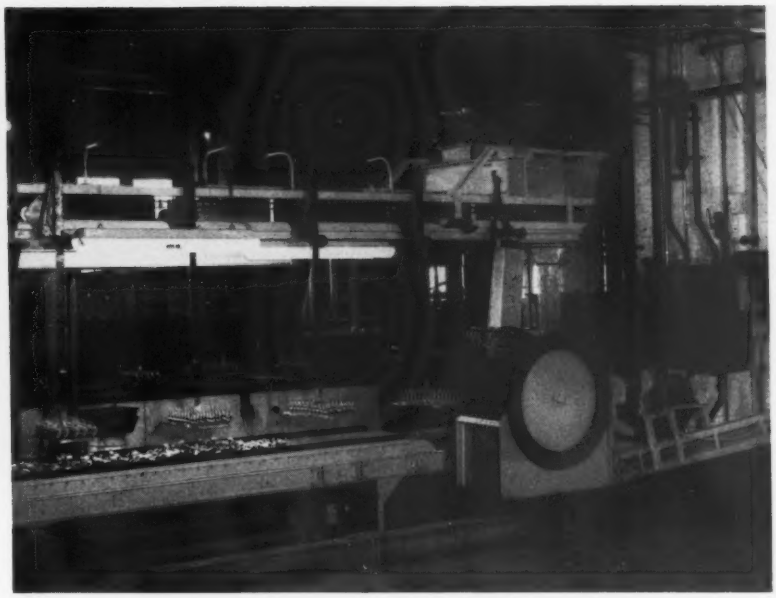
When this background is taken into consideration it is seen that, while their

PRESENT PLANT of the Malleable Iron Fittings Company in Branford.





A. E. HAMMER, son of the founder.



(Right) THE GALVANIZING DEPARTMENT is equipped with automatic galvanizing machinery.

"Articles of Association" were brief, when Messrs. Hadley and Rogers sat down and put their names to them, as a matter of course they were already pledged to an extensive religious and civil code. This had arisen out of the frontier hardships endured by their ancestors in the more than two hundred years since those zealots had landed and, as was customary, assembled to the beat of a drum, giving thanks to God for their deliverance. The codes which had come to buttress the faith of their fathers were now upholding them and of course, in turn, must be upheld by them. All stressed "the laws of nature and of nature's God."

As they signed, the heritage of Puritan liberty had been broadened. The Declaration of Independence had been drawn up. The Constitution and the Bill of Rights had come into being. Yet seven years were to elapse before Abraham Lincoln, in the midst of flaming Civil War, was called to define again the basic concepts of a new freedom.

New Blood

Shortly after the Emancipation Proclamation and just before the war's close, a group of several gentlemen of New England background found themselves in need of a foundry to manufacture some of the inventions of Mr. Joseph Nason, the so-called "father of steam heating." Mr. Nason, after learning about things mechanical at an early age, during residence and travel in England and Russia, outgrew the clothes which he had received in return for acting as office boy and porter in his father's tailor shop in Boston, and moved to New York to go into business.

In 1841 he established, in his 26th year, the firm of Joseph Nason and Company to sell pipe, then mostly made from gun barrels, which he imported from England. As Behrer-Nason, wholesalers in the same line, the firm is still in existence. Wishing to market his inventions to go with pipe, the globe and the angle valve, the steam trap, cast and malleable iron

T. F. HAMMER, president.

SHOWN HERE are the molding stations in the mechanized malleable foundry.

pipe fittings, and the "radiator" (the name he coined to describe his tubular device, now superseded by the staple of today), he was glad to fall back on the enterprise of his native city.

The holder of patents for cutting a taper joint thread on pipe and in the fittings, as well as the machinery to make all of this, Mr. Nason, in 1842, joined his brother-in-law, Mr. James J. Walworth of Boston, and the latter's brother, Mr. Clark C. Walworth, to establish the firm of Walworth and Nason. This is the present day Walworth Company.

The Walworths were of a promotional turn of mind. The purpose of association was to manufacture equipment for and install steam heating, then a novelty but now a commonplace necessity. With the broadening of the field, Walworth and Nason separated their activities, Mr. Nason staying in New York. However, they maintained and developed a number of mutual interests. Treasurer of these interests was Mr. Henry R. Worthington, whose name is preserved in the pump and equipment works he founded and headed. The whole of the present day business in valves, fittings and heating descends from Walworth and Nason and their numerous offshoots. It was a step taken by these gentlemen that contributed to the entire giant malleable iron fittings industry of today.

This was the incorporation of Malleable Iron Fittings Company. Nason in New York and Walworth in Boston both needed a supply of malleable iron, a costly and technical product. They negotiated for, and in 1864 took over the Totoket Company in Branford, midway between them. Here was an ideal water front plant. Raw materials came in by ship to the company wharves. On the other side of the building was the new railroad, which antedated it by two years and was growing in use. Western and southern industrial development was still in its infancy. Markets were near at hand.

Mr. Elizur Rogers of Totoket Company continued with the new corporation. Two Danish gentlemen, highly skilled in old world foundry work, were shareholders and active prime movers—Mr. Emil C. Hammer and his brother Mr. Thorvald F. Hammer. It was the sons and son's sons of this later gentlemen who were destined to be identified most actively with the management and growth of the Company. M.I.F. is still managed, headed and owned by the descendants of these founding fathers—Hammer, Walworth and Nason.

Evidently it had long been destined that the name Hammer was to be closely identified with Malleable Iron Fittings Company—since the early days of Rome, to be exact. Malleable takes its name from the Latin malleus—*meaning* hammer. In strange and symbolic coincidence the metal, which was once hammered out in Rome, was now poured, cast and annealed to elasticity from the crucibles of two Danes of that name in New England, themselves being subject to the Yankee melting pot and annealer.

A New Generation Takes Over

In due course this generation passed. In the next generation Mr. A. C. Walworth was president and Mr. A. E. Hammer treasurer and general manager and later, on Mr. Walworth's death, president. Mr. V. T. Hammer served as superintendent, Mr. C. W. Nason handled the line in New York. Mr. A. E. Hammer made the laboratory the great factor of malleable development and contributed much to the scientific progress of the industry. Under this regime there was great physical plant expansion, in peace and in World War I.

Unlike cast, or gray iron, malleable will soundly resist great strain, twisting, bending or compression. It fiercely defies disruption. It has a tensile strength of 48,000 to 60,000 pounds to the square inch, foremost of the "strong metals" of early days. Because the size of a malleable casting is limited, M.I.F., in order to give greater coverage, enlarged its scope in 1906 by adding a steel foundry. Very active in World War II, this foundry is now designated as a Navy stand-by plant.

Mechanization in Depression

The present plant is highly modern in both malleable and steel. When the third and present president, another Thorvald F. Hammer, acceded to the office on the death of his father in 1935, during the depression, the situation was further complicated by the passing of his uncle a few days later. He quickly organized a new Board of Directors, including grandsons of the original Hammers, Walworths and Nasons and went to work. With little delay a complete mechanization of the plant was conceived, designed, authorized and carried to completion. The mass production resulting gave much material for World War II and freed many men to the armed forces.

In this age of specialization, the Company has concentrated on pipe fittings for buildings, industry and oil fields, marine hardware, highway hardware, oil burners, and latterly on pole hardware, to supply the great increase resulting from the growth of electricity. While the mass production is confined to the factory at Branford, warehouses located in various section of the United States furnish service at strategic points about the nation.

As the far seeing "Articles of Incorporation" provided, there was a true need for "the buying and selling of real estate . . . for the interest of a successful manufacturing business." Whole families have served the Company for generations and most of them have been located in their own homes by company cooperation in the interest of mutual success.

An example of this is the late Lester J. Nichols, the firm's Secretary, the subject of a "Believe it or Not" sketch by Ripley. Coming to work August 13, 1866 he heeded a caution by his employer to "make it a permanent job." Dying just short of his own century mark he had served this one firm continuously, actively and well for eighty years, believed to be a record for singleness of service.

Faith Pays Off

The talented Mr. Nason, it is recorded, frequently remarked that he "invented" nothing, but rather just "figured out the works of things." No doubt all the founders felt much the same way. With their New England background they thought of their opportunities as given "by grace." So it was with the beginnings of most American business. Faith in the way of life which they carried on shaped their works. May not a certain logic underlie the destiny of American business to play a leading role in world development, by the conflict of their concept with that of the Godless totalitarian state?

Set forth here is the story of but one firm, which endured a hundred years and increased mightily under the system of American free enterprise. There are others on every hand and more yet to be born. Does it not behoove all to grasp the principles and carry on the faith which made them endure? To do this all must continue to work together and labor greatly. That is the universal faith of free men, and the story can not be told too often.

A NEARLY full length view of the interior of the Lucas plant.

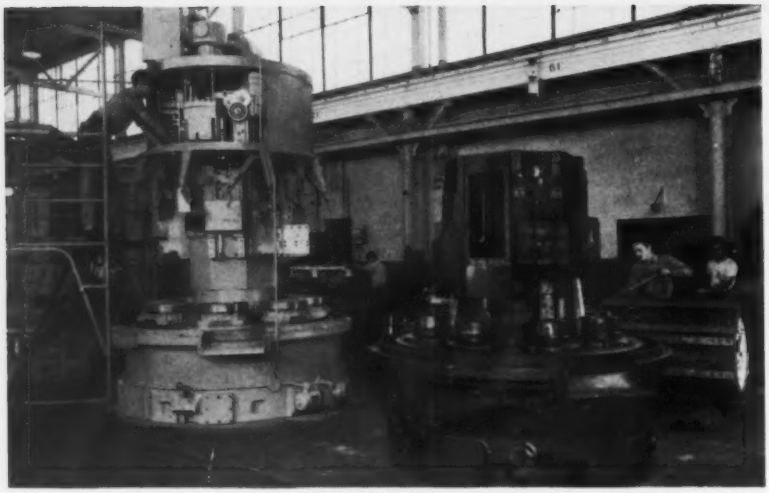
The J. L. LUCAS Story

IN the early days of this century—1905 to be exact—J. L. Lucas, a shop superintendent with the Locomobile Company in Bridgeport, Connecticut, with energy to spare, decided to occupy his leisure time profitably. He bought a number of small machine tools at a bargain, brought them to a small shop he installed in his home and on his time off took them apart and skillfully rebuilt them. So well did these machines perform that he soon found a ready market for them. As more and more of his rebuilt machine tools were used, still more buyers besieged him for his work. Soon Lucas' "spare time" activities overshadowed his regular job and it was not long before he was devoting all his time to rebuilding machine tools. Thus a new business was born, and in a short time Frank B. Lucas, son of the founder, joined his father to build gradually an organization which was to be known internationally as the "Tiffany" of machine tool rebuilders.

As the years passed J. L. Lucas & Son, Inc., found that they were creating something more than superior machine tools; they were building an organization. Master workmen and keen executives came to the Lucas Shop to learn and apply the Lucas advanced methods of rebuilding. To attain this goal "J. L." realized that his assistants had to work as a team with ideal worker-management relationship. "J. L." has since passed on, but the men he trained are carrying on his ideals and principles.

Today the firm of J. L. Lucas & Son, Inc. is housed in a new, ultra-modern plant in Fairfield, Connecticut, designed and constructed to facilitate the highest standards of rebuilding machine tools in the "J. L." tradition. All the machines are completely dismantled to their basic castings, and each part is carefully inspected for defects, wear, or damage of any kind. Such defective or worn parts are replaced with new ones ordered from the original manufacturer. In order to restore the machines to original accuracy, all working surfaces are carefully planed and scraped in. The reassembling is done with utmost care, with all tolerances constantly checked, and when the machine is completely reassembled it is run for several hours to assure proper breaking in. The machine is now ready for the inspector, who checks the accuracy against standard requirements. Each machine has its own test chart showing the final readings against the standard minimum and maximum tolerances required of new machines.

EXTERIOR VIEW of the J. L. Lucas & Son plant on the Post Road, Fairfield.



TWO MULTI-AUTOMATICS are shown here—one rebuilt and the other in the process of being rebuilt.

To attain ideal team work and the finest co-operation of each individual craftsman, particular attention is given to the comfort and ideal working conditions of the employees. The latest lighting and heating methods have been installed, as well as a well-equipped cafeteria which is maintained at cost.

Installation of Barber Shop

During World War II the employees, working maximum overtime, found little or no time to visit a barber shop and, mindful of the axiom that one feels as good as he looks, the company installed a well-equipped barber shop in the plant and retained a local barber to be in attendance two days a week. All male employees arrange their appointments with the barber to have their locks trimmed on company time. For obvious reasons, shaves, shampoos and manicures are not permitted.

From Rebuilding to Designing

In addition to the normal function of rebuilding machine tools under contract and the sale of used rebuilt metal-cutting equipment, the excellent team work within the organization has permitted the company to expand its activities to designing special equipment to suit the requirements of their clients.

Over a period of two years many interesting special jobs have been accomplished and, since limited space does not permit all the jobs to be described, the following are samples of recent developments.

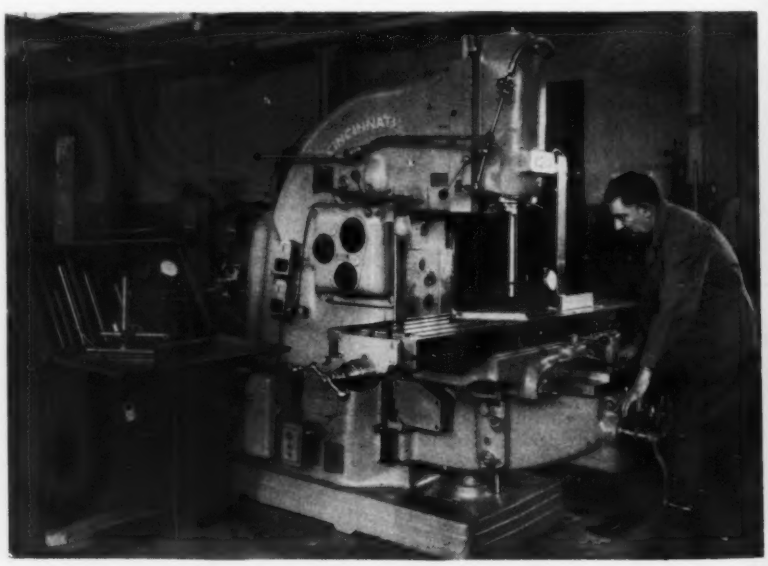
Several months ago one of the largest manufacturers in the country required a machine tool to finish a bulky unit used in the manufacture of Diesel Electric Locomotives. The problem was brought to Lucas as the customer was faced with an eighteen-months delay in delivery on a new machine. As a result, Lucas suggested the complete rebuilding of an older model Planer Milling Machine, including complete re-design of the machine, and the installation of a modern high-powered self-contained motorized milling head on the cross rail. The machine, when rebuilt and redesigned, performed the customer's operation with the same rate of speed as the proposed new machine, and held well within the tolerances they had expected to obtain on the new machine. The net result was a saving of twelve months over the delivery on the new machine and considerable savings dollar-wise.

Growth of Special Work

Lucas recently completed a very interesting job for one of the large eastern railroads, which consisted of redesigning and rebuilding an old-model journal lathe into a modern-type machine with opposed cross slides for improved burnishing operations. The machine, when completed, had the higher range of spindle speeds comparable to a modern machine, and the accuracy of the turning operation and the finish on the burnishing operation proved highly satisfactory. The net result was a machine tool comparable to a new machine but at a far lower cost. Since this first machine was completed and put into actual operation it has been completely successful and, as a matter of fact, the railroad has had a second machine redesigned and rebuilt along these same lines and contemplates having two additional machines sent to Lucas for the same type of rebuilding operation.

A Mid-Western aviation products manufacturer required a horizontal and vertical positive stop to be installed on several Vertical Turret Lathes, in order

(Continued on page 64)



HENRY VALZ, chief inspector, making final tests on a rebuilt machine tool.

BLAINE COTA, Bristol artist, was the speaker on the subject Art and Fashion as one of the discussion groups on future careers. Mr. Cota, who has had much experience in the field of art, is shown as he explained to the students the type of training necessary for this type of work.

SHOWN HERE are a few of the students who participated in the conference on physical and occupational therapy, conducted by Nicholas Yonclas, senior physical therapist, Rocky Hill Veterans Hospital.

Education and Industry Co-sponsor Career Days in Bristol

ALTHOUGH vocational guidance has long been functioning in our school systems throughout the state, the idea of holding practical "grass roots" Career Days where experienced men and women from business and industry actually give first hand information to high school students about the requirements, problems and satisfactions in their jobs, is a comparatively recent development.

According to our best information, J. Ormonde Phelan, vocational guidance director of Meriden High School was the pioneer in this venture, working in cooperation with the Meriden Manufacturers Association and Chamber of Commerce to stage a Career Day for the first time in November 1950. Since that time they have been held frequently, using varied procedures, in the Meriden-Wallingford area. In the hope of encouraging the launching of such activity in other communities of the state, CONNECTICUT INDUSTRY published articles on the Meriden operation in its January, 1952 and June 1953 issues.

Now Bristol businessmen and educators, sparked by their local Chamber of Commerce, secretary, George Underwood, have broken the ice to stage the first, highly successful Career Day at Bristol High School early in December. Co-sponsored by the Board of Education and the Bristol Chamber of Commerce, it marks the first of a planned continuing series of Career Days to be held twice a year, in the fall and spring.

Planning for Career Days

Prior to each Career Day the students are provided a comprehensive

(Continued on page 40)

HERE A GROUP interested in hospital work, one of the largest held, learn of the requirements and opportunities from W. Anthony Towle, Jr., of Bristol Hospital.

THE CONFERENCE on chemical and industrial engineering was conducted by Vernon C. Geckler, chief engineer at New Departure Division, General Motors Corporation.

Revere Corporation

Opens New

Thermal Harness Plant In Meriden

THOMAS BALL, JR., president and general manager of Revere Corporation of America, Wallingford, Conn. manufacturer of precision instruments for aviation and industry, announced recently a 50 per cent expansion of its facilities with the opening of the New Thermal Harness Company plant in Meriden, Conn.

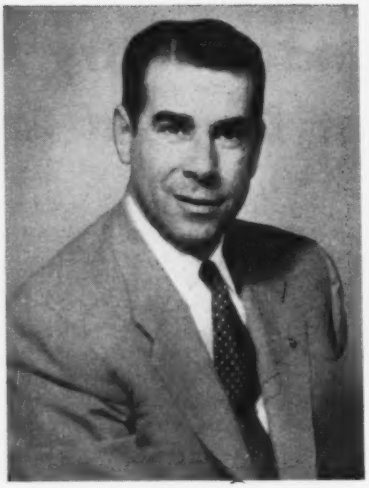
Through the acquisition and complete remodeling of the former Parker plant at 48 Elm Street, Meriden, Revere has added more than 38,000 square feet of production space to its manufacturing operations. This brings the total production floor area of both plants to 94,000 square feet.

This expansion, Mr. Ball said, is part of the program resulting from affiliation of Revere with Neptune Meter Co. of New York, world's largest manufacturer of water meters, which since 1951 has held 49 per cent of Revere stock.

Through a stock transfer, Neptune has acquired the remaining 51 per cent interest in Revere. With the exchange of stock in both companies and other considerations, Thomas Ball, Jr., president and Frank R. Ball, vice president-treasurer of Revere, have become substantial share holders in Neptune.

In New York, Mr. D. E. Broggi, president of the 62-year-old meter firm, announced that there would be no changes in management, production or sales policies of Revere. Thomas Ball, Jr. and Frank R. Ball will become members of the Board of Directors of Neptune Meter Co., Mr. Broggi said.

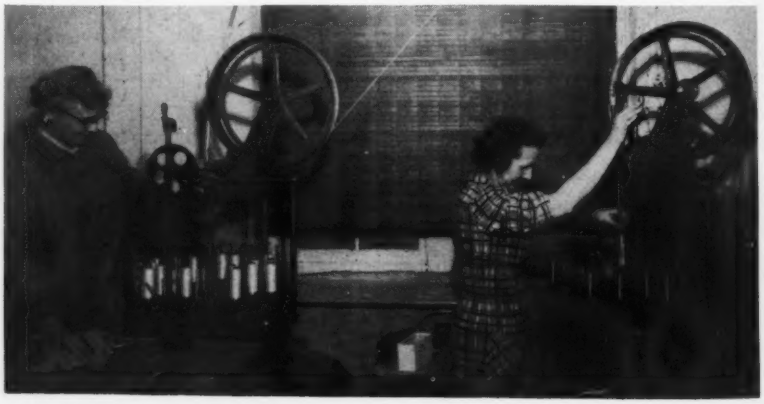
Mr. Russell Anfinson, formerly chief accountant at Revere, is assistant general manager of the Thermal Harness Co. and in charge of operations at that plant.



THOMAS BALL, JR., President, Revere Corporation of America.

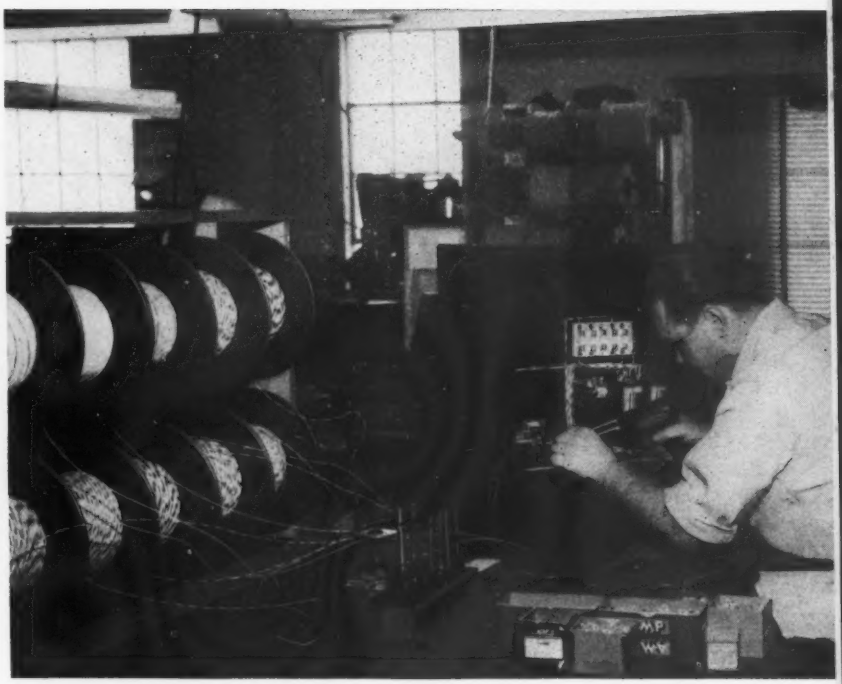
FRANK R. BALL, Vice President, Treasurer, Revere Corporation of America.

Revere was formed in Wallingford in 1940, in a small plant that occupied 1,500 square feet of space on North Cherry Street. A new plant was built in 1943 to provide 10,000 square feet



BRAIDING MACHINES, operated by skilled Meriden women, use fibre glass and stainless steel wire to braid layers of high temperature protective coverings over special wire harnesses.

HELIUM is used to replace air in the process of hermetic sealing a contacting mechanism, a component part for a fuel level switch used in many of the latest jet aircraft.



A SOLDERING GUN is used to complete some of the connections in this Electronic Toll Recording equipment. Eleven different color coded spools of wire give an idea of the complex wiring systems in these precision instruments.

to meet demands of the national defense program. The company was incorporated in 1946. In 1951 Revere built and moved into its large modern plant on North Colony Road.

Revere engineers have been engaged in research and development for the past 8 years and through this research, Revere skilled craftsmen have produced many aircraft fuel system components, such as fuel float switches, flow switches, vent valves, fuel flow transmitters, indicators, temperature control and indicating equipment.

Revere instruments for the measurement, transfer and control of fuel and temperatures are to be found today on all types of airplanes. A recent installation is on the world's newest, largest and fastest Jet Super Bomber built by Boeing and known as the B-52.

Instruments manufactured by Revere are used on the country's most important strategic planes—for instance, Boeing's B-47; Republic's F-84 Thunder Jet; North American's Saber Jet; and for other well known air frame and engine manufacturers, including those produced by Lockheed, Northrup, Convair, McDonnell, Grumman, Pratt & Whitney Aircraft, Martin, General Electric, Allison, Westinghouse, Wright Aeronautical and others.

Revere achieved substantial growth during World War II and today many of its precision instruments in the electro-mechanical field are in demand not only in military aviation but also in other industries requiring accurate control of liquids and temperatures. These include thermocouples, thermocouple harnesses, thermocouple leads, electrical connectors, special wire which is used to measure temperatures in grain storage elevators and electronic toll recording equipment for highways and turnpike systems.

SPECIAL ALLOY REEDS are assembled into glass tubes and then hermetically sealed by electric heat in this complex machine. These hermetically sealed, magnetically operated glass switches have many uses in aircraft, rockets and guided missiles.

Report On West German Progress

By A. V. BODINE, *President*
The Bodine Corporation, Bridgeport
Director and Past-President MAC

A. V. BODINE

By request of the Berlin Chamber of Commerce and Industry, the United States State Department was invited through its Foreign Operations Administration to send to Berlin a Top Management Team consisting of four men, representing the industries of Machine Tools, Womens' Dress Manufacture, Printing, and Electrical Appliances. The personnel of this team was recruited by the Council For International Progress In Management of 51 East 42nd Street, New York City (under contract with FOA).

This Top Management Team consisted of—

A. V. Bodine, president of The Bodine Corporation, Bridgeport, Connecticut, representing Machine Tools Industry; Paul Hershcopf, vice president of the Henry Rosenfeld Co., New York City, representing Womens' Dress Industry; Charles E. Schatvet, president of Guide-Kalkhoff-Burr, Inc. of New York City, representing the Printing Industry; Vale E. Freeland, marketing representative of Electric Appliance Division, Westinghouse Electric Corporation of Mansfield, Ohio.

Why Berlin?

It is a known fact that the economy of Western Germany, exclusive of Berlin, has shown a remarkable recovery. Using 1936 as a year with an index of 100, Western Germany now has an economy index of 151, whereas Berlin, an island of freedom 105 miles behind the Iron Curtain, has an index of only 61. There are several reasons for the slow recovery of Berlin as compared with Western Germany proper. Counsel and an interchange of ideas between top management ranks was greatly desired by Berlin executives. Like the remainder of Germany, Berlin suffered two years of intense allied bombing which was focused primarily at the great industrial centers. In addition to this general destruction of its economic life, Berlin suffered a month of savage street fighting before they yielded possession of the city to their Russian "Liberators." Then followed two months of Russian occupation that stripped and plundered and left the city a mere shambles. Over 80% of the industrial capacity of the city was completely dismantled and removed by the Russians. Nothing was left in most factories but the walls. In addition the fine old residences in the outlying sectors were plundered and burned so that the city found itself under an estimated two billion tons of rubble and with chaos on all sides. West Berlin, once the fourth largest city in the world, with a population of over four million people, was largely destroyed by the time of the Allied entry on July 4, 1945.

Allied controls were set up in Berlin on July 11, 1945, and by Allied agreement the participants were the United States, Britain, France, and Russia. At the time of the currency reform in early 1948, Russia walked out of the Allied Control Council in March 1948 and set up a separate government in what is now known as the Eastern Zone of Berlin, with its own East Mark as its medium of currency exchange. Western Berlin, consisting of the United States, British and French sectors, accepted the Deutch Mark—the currency of Western Germany—as its medium of exchange.

The boundary line between West Berlin and East Berlin zig zags through the main streets of this once proud city and is sixteen miles in length. At one time there were 120 street crossings on this boundary line. Seventy of these street crossings are now barricaded and at the remaining fifty crossings there are Russian soldiers to check the traffic from East to West and vice versa.

Russia has done everything possible to discourage West Berliners and West Berlin industry. The only method of free access into Berlin is by air. The Russians control ground transportation of all types. You cannot telephone from West Berlin to East Berlin nor can you cross from one sector to the other in a street car. You can cross by limited service on the subway which unfortunately is under Russian control. You cannot even telephone from West Berlin to other parts of Western Germany without spanning the 105 miles to the Iron Curtain by radio. Russia, therefore, completely controls the in and outflow of materials and finished products into Berlin and in June 1948 effectively blockaded the city. On June 24, 1948, the Allies inaugurated the now famous airlift and continued to supply Berlin until May 1949. At the height of this activity, 8,000 tons of material a day were being handled by the Berlin airlift. Largely because the residents of the city recognized the important part this airlift played in keeping them alive, they look to America and the Allies as their real liberators. Perhaps the best friends that America has in Europe are to be found in West Berlin.

At the time of the Allied entry into Berlin, it had lost approximately 1½

million in population and industry found it very difficult to re-establish its productive facilities, and also difficult to obtain orders from outside Berlin due to the uncertainty of deliveries. Berlin, prior to the war, had been a highly important industrial, governmental, and financial center in Europe. Approximately 53½% of its population was employed (as against approximately 40% in the U. S. at present). It was not until Marshall Plan Funds became available in 1949 that Berlin industry really began to find the sinews of production required to re-establish itself—and the progress that it has made is a tribute to the splendid cooperation of the United States, Britain and France, and particularly to the able leadership of General Clay who, for a long time, headed the Allied Council.

Any general conclusions I make represent the observations of an American businessman who spent only five weeks in West Berlin on a strenuous schedule of plant visitations and seminars that had been previously prepared by the Berlin Chamber of Commerce and Industry. These observations should not be taken, therefore, as a studied research into the complete problems of Berlin. Any evaluation must consider the peculiar political, geographic, and economic conditions that obtain in the area.

For their courage, faith, diligence, and hard work, we greatly admire West Berlin leadership. Many factories were rebuilt by management and employees working together without pay. We met with enough businessmen to know that West Berlin does not lack the aggressive leadership so necessary for the tasks that lie ahead. We have seen examples of the best and worst of American practices in our brief sojourn. In the areas of apprentice training, social programs for employees, use of blind and disabled persons, manufacturing methods, and plant layout, Berlin has many outstanding examples that are unsurpassed in the United States. These should serve as models for other industries in the area.

In the areas of wages, hours, labor union relations, product design, market development, selling techniques and consumer research, great improvement could be made. In these areas, they are at least twenty years behind the United States.

Seminar discussions, factory visitations, and individual conferences provided opportunities to learn much about Berlin problems and the attitudes of Berlin businessmen. Each of the four men on this Top Management Team conducted sixteen seminar sessions during the four week period—each session being four hours in length—and during which time, 243 top business executives registered for the seminar courses. In addition to these registrants, it was our privilege to confer with many other people in the area from all walks of life—all of whom freely questioned us with respect to American practices in almost every area of our American way of life.

On the subject of taxation, Berlin businessmen were unanimous that taxes were much too high and higher in Berlin than in West Germany or the United States. We attempted to convince them that Berlin and United States taxes were comparable—always unpopular, but that we shall have to share the tax burdens. We further pointed out that destructive wars are successful only in increasing the tax burden on those who participate, victors and vanquished alike. And that it was our hope that the great freedom loving nations of the world might be able to find a better way of settling differences of opinion than by armed conflict.

In the area of interest rates and collateral, Berlin businessmen felt that they were being exploited. Marshall Plan money is made available at interest rates of 5% or 6%. Loans from commercial banks in Berlin (and all West Germany) command 8% to 10%—frequently much more. Berlin businessmen complained that collateral demanded for bank loans are exorbitant and frequently non-existent. Considering the almost total destruction of business by the Russian occupation, there is a peculiar collateral situation in Berlin.

Banks informed us that they pay 4% to 5% on savings accounts and 1% under certain conditions on checking (active) accounts. These high hiring rates for money have apparently existed in Germany for many, many years. We attempted to point out to the Berlin people that neither the money lenders or the banks should expect an unfair share from the economy and that certainly the credit structure of a community was a very vital part of its economic life. We suggested that for all Western Germany interest rates in line with United States practice would stimulate the economy. More favorable credit terms would do much to stimulate business and reduce unemployment.

In the general over-all picture, the mass of the German people lack purchasing power. We were informed the average wage in Berlin was approximately DM 1.5 per hour for a 48 hour week. The average wage for all of West Germany was DM 1.63 per hour for 48 hours per week. We found many areas where wages were much lower. In the garment industry (once a leading Berlin industry), wages were from DM 0.80 to 1.00 per hour. With wage deductions of approximately 30% for taxes and social benefits, this means that a person must work approximately 2 weeks to earn an average street dress as compared with two days in the United States.

Furthermore, on the above basis, a garment worker earns about DM 35 per week take home pay. The unemployment dole is DM 25 per week—so she works 48 hours for an additional DM 10 per week. This is not enough margin to stimulate employment. Business is taxed for the dole. It might better pay higher wages and less for relief taxes.

We suggested, first, a reduction in the work week from 48 to 44 hours with no reduction in take home pay. Second, a further increase in wages from "the profit margin" temporarily and, three, a further increase in wages as increased productivity makes it possible. There are many areas where great improvement can be made which would reduce costs far beyond any increased labor costs above indicated. Furthermore, a reduction in the work week would reduce the pool of unemployed in the city, at least temporarily, until the productivity per capita was increased as it certainly could be increased.

We were informed that 55% of the wage earner's pay in Berlin is required for food as against approximately 25% in the United States. Food is not expensive in Berlin, hence this is another way of admitting that wages are too low. It was the opinion of our visiting team that the purchasing power of the working classes must be increased before any substantial improvement in the economy can be realized.

Marketing distribution, consumer research, as we know it in the United States is an unknown profession in the Berlin area. Hopeful eyes are constantly focused on the green pastures of export, notably the United States. We were repeatedly told "we must

have free access to your great American market of 160 million people." Actually there are 50 million people in Western Germany . . . a density of 500 per square mile (10 times that of the United States), who need much more per capita than our United States people. With purchasing power in the hands of the masses, a great domestic market exists that would absorb most of the German production. We realize they must export enough to acquire certain basis raw materials, but that, at the moment, is not the major problem.

It would probably be unwise to actively develop markets in an area devoid of purchasing power. However, we must recognize this is the old problem of the hen and the egg, but nevertheless both programs are of the long range type. It would appear to me that in this instance purchasing power should come first.

Collective bagaining, as we know it in the United States, does not exist in the German economy. German labor unions are organized on a political basis rather than on an economic basis. A reorganization of the labor unions, we believe, would be beneficial. German unions organized on a craft basis, and with local autonomy, was suggested. Unions now seek political solutions for economic problems.

The products of German industry in certain areas, such as cameras, optical goods and electrical equipment, are unsurpassed. The design, workmanship and general excellence of these products indicate that the knowledge and skills are available to produce merchandise acceptable in the markets of the world. In many other areas, however, notably household appliances (electric irons, toasters, refrigerators, stoves, washing machines), Germany is 20 years behind the United States. The products of their present factories would find no consumer acceptance in the United States and hence no export market in the United States could exist without a complete redesign of the items in these areas of operation.

In the four fields, specifically represented by the Top Management Team, very general comments may be of interest.

Machine Tools

All of the plants in the machine tool industry that we visited were new, or recently reconstructed. Most of the equipment was new and in general better than average in comparable United States plants. Most of the equipment was acquired through the use of Marshall Plan Funds which became available in 1949. The machine tool industry is greatly overexpanded, far beyond any normal market requirements and must prepare to add durable consumer goods, or similar lines, to its output.

We saw very many clever and ingenious uses of machine tools to accomplish certain operations which are typical of the ingenuity and skill of the German people. The principal current difficulty, however, is that there are not enough orders to keep these plants busy, nor will there be in the foreseeable future in the machine tool field.

Generally, the design of the machine tool product is good. It is lighter than our American practice and in that area could be improved. Quality control is outstanding and the finished product shows the result of superb skill of master craftsmen.

Printing

The quality of the finished product in the printing industry is excellent. The plant equipment is only moderately good. Plant layout is generally very inefficient and materials handling is decidedly poor. The apprenticeship system in the printing industry is good —considered better than in the United States. In this craft, however, there is much room for improvement, particularly for cost reduction in operation.

Dress Manufacturing

Generally poorly organized and scattered geographically all over Berlin. The general design of the garments is considered good. Berlin was once the garment center of Europe, comparable to New York in the United States. Today, it sells only 2% of its output in the Berlin market, 48% in Western Germany, and roughly 50% is exported to the other countries in the Western group. There are too many subcontractors (3,600 in Berlin versus 800 in New York City). There is not enough specialization and the equipment is inadequate, resulting in exorbitant labor costs.

We recommended the establishment of a garment center in Berlin, similar to the New York garment center. In this area, perhaps the greatest improvement in the economic life of the city, might be affected. The capital investment required to equip the garment industry is low. For a comparatively small investment in capital, a relatively large number of people can be employed providing the proper organization is effected.

Electrical Appliances

There are no electrical appliances manufactured in Berlin and very few are in use. If there was purchasing power in the hands of the common people, an aggressive campaign to liberate the German housewife by the use of home appliances would open a new field for industry. Berlin could become the center of this appliance industry. Here again, the American Technical Assistance Teams could be of great help and benefit in providing product designs that would be acceptable to the consumer and within the price range that would make them saleable. The design of electrical appliances that are now available of German manufacture are approximately 20 years behind the United States.

Germany and the United States can both benefit by a free interchange of technical information and, in the broader view, the philosophy of living together peaceably. It is my opinion that prosperity in the truest sense is more than the achievement of physical and economic wellbeing. Prosperity means the freedom of man to develop and utilize his talents in the light of his own preferences and for the benefit of the society in which he lives. Many age old barriers must be eliminated in Germany before this type of prosperity will exist. An improvement in the material wellbeing of a people is frequently supplemented by an improvement in their spiritual wellbeing. We saw many evidences of a change in the philosophy of life and also many contrasts in our contacts with Berlin businessmen. In general, we were encouraged and hopeful that a new era is at hand in this great nation.

It would appear that the first object of the German people is now integration with the Western powers. The second object, the unification of Germany, would do much to solve many problems. While it is admittedly a long range problem, we believe, under United States leadership, substantial progress is being made.

In the over-all European situation there are two essential requirements for economic stability and thereby political stability, namely, the elimination of all trade barriers and the free convertibility of currencies.

Combating The Effects of *Noise*

By W. F. SCHOLTZ, *Supervisor of Industrial Hygiene*
Allis-Chalmers Manufacturing Company, West Allis, Wisconsin

Editor's Note: **This is the first in a series of articles concerning recent researches on the effects of noise in industry upon hearing and their physical and economic implications. This edited outline of the studies which have been made at Allis-Chalmers Manufacturing Company was first given as a talk before the National Noise Abatement Symposium, Armour Research Foundation of Illinois Institute of Technology, on October 23, 1953.**

Introduction

THERE is increased interest in the industrial hearing field created by the fact that exposure to sound, under certain conditions, has been found to cause some hearing impairment. This interest has been reflected in both management and labor circles. The problem has been further complicated by a sudden increase in the number of claims filed for industrial hearing loss, presumably caused by exposure to high intensity sound.

To date, studies have merely outlined the major uncertainties existing which make the establishment of standardized tests and measurements difficult.

Allis-Chalmers has done a great deal of valuable preliminary study which made it possible to set tentative standards and chart a course for its program which, it is hoped, will make it possible ultimately for the company to control the noise problem.

Here are the brief facts about the preliminary study. As far back as 1948, under the guidance of the late Dr. Grove[1], we were able to formulate the initial steps toward an industrial hearing conservation program. Instruments to make sound level studies were acquired and personnel was trained in their use. Surveys were made of various industrial operations and used as a basis for future studies. Audiometric instruments were later added and examinations of personnel begun.

As a result of the experience gained in our basic studies we were able to develop a program which, we feel, is moving toward the ultimate control of our noise problem. For anyone interested in starting a program to combat the effects of noise, the following steps merit consideration:

Step 1—Plant Surveys

First of all, a spot check of the plant should be made with a sound level meter to learn how much noise there is in the plant and where it is. When locations are found where the noise level is 95 decibels or above, a program of audiometric examinations may be in order. These spot checks should be followed by a complete sound level survey of the plant. After the plant is surveyed, a sound band analysis should be made at locations where sound level readings above 95 decibels were obtained. This data will be particularly helpful in planning a noise abatement program. Thereafter, periodic follow-up surveys should be made. All new, repaired, or transferred equipment should also be checked.

A level of 95 decibels has been accepted only as a starting point for our sound band analysis study and does not establish a level at which hearing loss begins.

Step II—Audiometric Examinations

All new employees should be given a pre-employment audiometric examination. For statistical purposes, it is desirable to take an audiogram on a pure tone audiometer in the frequency range of 125 to 12,000 cycles, even though the range ordinarily used is 250 to 8,000. It is also important that the age, sex, and occupation of the employee is recorded. The previous work history is also important and should reveal the operations to which he was exposed in the past. For example, "Did he work as a milling machine operator, a ribbon salesman, or as a boilermaker's helper?"; "What was his opinion of the noise level where he worked?"; "Did he think it was noisy?"; "Could he carry on a conversation without difficulty?" The military service record should also be recorded, specifically stating what branch of the service he was in, what he did, and for how long. For example, "Was he a machine gunner, an MP, an office worker, radar operator, etc.?"

The next questions that should be asked are: "Is your hearing good?" This can be answered either "Yes" or "No." "Can you hear over the telephone, in a theatre, in a single conversation or group conversation?" Next, it is desirable to know if he is using a hearing aid, and if so, for how long. Another important question is: "Do you, or have you ever, used ear protection?" It can be followed with such questions as regularly? often? seldom? Also, "What type was used?" Some of the answers to the last questions showed that oil soaked cotton or dry cotton, 32 caliber shells, round head screws, gum, and even rubber erasers, had been used as ear protection.

It may seem to some that the value of this type of data is questionable, but for the present, at least, we feel that it is important for research purposes. The employee should also be given an otoscopic examination to exclude present ear discharge or wax. This should be done by the examining doctor.

It may be interesting to know that in checking over 6,000 pre-employment audiograms, it was found that 27% of our new employees had some type of audiometric loss. Dr. Wheeler,[2] in his work found approximately the

[1] Dr. Grove was Chairman of the Sub-Committee on Noise and Industry of the Committee on Conservation of Hearing of the American Academy of Ophthalmology and Otolaryngology.
[2] Dr. Wheeler was Field Representative of the Sub-Committee on Noise and Industry of the Committee on Conservation of Hearing of the American Academy of Ophthalmology and Otolaryngology.

same percentage. We recognize, however, that this percentage represents only hearing losses found in an industrial segment in the Milwaukee area. It will probably be different for the general population and may vary considerably with geographical locations.

New employees going into areas where sound level readings are above 95 decibels should be rechecked before their probationary period has ended (in many plants this is three months) and then again six months after this examination. Thereafter, they should be re-examined yearly. The figure, 95 decibels previously mentioned, was arbitrarily set by our Medical Department as a level where it was felt it would be desirable to study possible audiometric changes among our employees.

If periodic physical examinations are given, the audiometric examination should be made a part of it. Eventually, however, all employees should be covered by audiometric examinations.

Step III—Job Placement and Transfers

If an employee shows a significant loss of hearing on the recheck, particularly the new employee, he may have a noise susceptible ear. If so, he should be provided with the best possible hearing protection and sent to a competent otologist for further study.

Thus far we have not found sufficient factual information to justify transferring an individual from a noisy environment to a less noisy environment, except in those few instances where the hearing loss is progressing in spite of protective measures. A program of noise abatement should also be considered in order to reduce the overall noise level.

Step IV—Records

The noise level at which the employee works should be entered on his audiometric record. Audiograms should be kept on file by the Medical Department as a part of the employee's medical record. The sound level survey and noise abatement data should be centrally located and available to all parties concerned.

Step V—Audiometer Room

If audiometric examinations are to be conducted on the premises, they should be taken in a room which is preferably a part of the first aid facilities. The ideal audiometer room is one where the noise level is 50 decibels or less. It is important, too, that the noise level be fairly constant. If the noise level is high in the room where the audiometric testing is done, competent acoustical engineers should be engaged to correct it in order to assure accurate and consistent audiograms.

From my experience in industry, I know that in many plants it will be impossible to construct a testing room with a noise level of less than 50 decibels without the expenditure of large sums of money.

According to statements of our medical director, Dr. Paul J. Whitaker, in talks given at a series of clinics on industrial noise and hearing conservation for the Wisconsin Council of Safety, any room can be used for audiometric purposes if the noise level in that room is reasonably constant, has been measured, and is such that it does not interfere too much with the audiometric tests in the lower frequencies.

It was found practical to train our own audiometer technicians. This training is done by our Medical Department along the following lines.

A simplified description of what noise is and how it may be measured and evaluated is given. Then, the use of the audiometer and its ramifications are demonstrated. The trainee is given an opportunity to practice for some time, approximately two to three hours, taking audiograms of various people in the Medical Department. He is then rechecked by the instructor to see that the audiograms are made in line with the instructions. If satisfactory progress has been made, he is permitted to make audiometric examinations under close supervision of the instructor. In addition, written instructions, explaining in detail each step, are given to each trainee. This assists in insuring that all operators take audiograms in the same manner.

Step VI—Noise Abatement

On the recommendation of the Health and Safety Department, the West Allis Works Safety Council, which coordinates the health and safety program, appointed a noise abatement committee for each of the four operating divisions.

These committees are made up of members from the Maintenance Department and shop supervision. Shop people were selected for these committees because it was felt that it is shop operating problem. The Hygiene Section of the Health and Safety Department cooperates with these committees acting in the capacity of staff assistants. In this capacity, an educational program on noise was presented to acquaint them with the problem. Sound level readings are taken at their request and previous noise surveys are evaluated. In addition, the Hygiene Section catalogs the results of their noise abatement work. All outside contacts relative to noise and its abatement are coordinated by the Hygiene Section.

Methods Used to Reduce Noise

In the absence of noise abatement standards, the committees felt that the logical places to start noise abatement work would be at locations where "too noisy" complaints had been received. In the limited time that the committees have been functioning, it has been found that a good share of the noise in the shop can be reduced through good maintenance of machines and equipment.

At a number of locations where loose gears and bearings were replaced, the noise level was reduced from 8 to 10 decibels. By replacing metal safety guards with wire mesh safety guards, a low frequency hum was reduced 10 decibels.

On several production operations where compressed air is used to blow chips from recessed parts, we were able to reduce the general noise level as much as 12 decibels by performing the operation in a small cubicle lined with acoustical board.

The largest single expenditure that we have made to date in our noise abatement program was in the Tabulating Room where the overall noise level was lowered an average of 7 decibels through acoustical treatment of the room. It is interesting to note that a similar room had been acoustically treated and no change in the overall noise level was produced. This experience clearly shows that the indiscriminate use of acoustical material, in the absence of competent acoustical engineering, will not always bring about the desired results.

Of great interest to our committees was the reduction of noise on our six-spindle automatic screw machines, achieved by lining the bar stock feed tubes with coil springs. This reduced the noise level from 95 to 85 decibels.

By installing mufflers on the exhaust

(Continued on page 20)

New Council Seeks to Improve Economic Education In Connecticut Schools

By FRED D. WISH, JR., *Executive Secretary*
Connecticut Council for the Advancement of Economic Education
Former Superintendent of Schools, Hartford, Connecticut

FRED D. WISH, JR.

Editor's Note: **In this brief news story Mr. Wish tells of a new cooperative effort in economic education which holds great future possibilities for filling a dangerous gap in the curriculums of Connecticut schools. Its success, however, will depend upon continued modest financing by industrial and business concerns, labor unions, agricultural and other organizations and individuals, and upon the wise and diligent efforts of Council members in developing and gaining acceptance by teachers of the proper economic teaching aids. The MAC, which has already demonstrated its interest in economic education through distributing an 18-unit Study Aid program treating with our Political Rights and Our American Way of Doing Business, to Connecticut schools starting in 1948, is continuing that interest through membership in the Council for the Advancement of Economic Education.**

For a number of years it has been increasingly evident to many business leaders that a better understanding and appreciation of our American economy was needed by our citizens, and particularly our youth, in order to provide reasonable assurance that it would continue to keep open the free way of life for future generations. Many individual companies and numerous organizations representing business have spent substantial sums and much time in preparing study aid units and a variety of other forms of economic education programs for schools, their employees and for the general public.

An ever growing number of educators have also become aware of the need for greater economic understanding among teachers themselves and more widespread and effective teaching of those understandings in the schools and among adult groups in the community. The awareness of the need for a cooperative approach probably received the greatest stimulus through the organization of the Joint Council for Economic Education in New York in 1949, which came as an outgrowth of a three-weeks Economic Workshop conducted by New York University and financed by the Committee for Economic Development at Riverdale, On-The-Hudson, in 1948. It was felt by the Joint Council and by many educators that the cooperative approach by educators, businessmen and other groups under local and state economic education councils, would allay any suspicion of propaganda which has retarded the acceptance of some business-sponsored economic education programs in recent years.

Two recent comments—one from Dr. Edwin Nourse, the economist and present vice chairman of the Joint Council on Economic Education, and the other from a recent issue of Nation's Business—point up the present urgent need for more economic education in our schools. Dr. Nourse says, "The whole idea of free enterprise under free government presupposes economic literacy for the millions. Strains and dangers that our founding fathers could not forsee threaten our American way of life. Only through an economically enlightened citizenry shall we be able to preserve it by making it conspicuously successful." Nation's Business says, "Tough job. Survey shows less than 5% of high school graduates in the United States have had a course in economics—yet they are expected to accept and extol the American way of doing business."

These and numerous other observations concerning our lack of economic understandings, as well as the encouraging experiences of the Greater Hartford Economic Council, prompted the organization in December of the Connecticut Council for the Advancement of Economic Education.

The preamble to its Constitution states its purpose as follows:

"We, as representative individuals interested in education and the economic life of Connecticut, to promote more effective teaching of economic understandings, strengthen school-community relationships, further the development of responsible citizenship and coordinate the efforts of interested members of the teaching profession and the community in protecting and developing our American heritage, do hereby establish this organization."

Educators realize that they cannot achieve their purpose alone; nor can organizations outside the school, however versed and capable of communication. But to the accurate knowledge of leaders engaged actively in the operation of our economy add the "know-how" of educators skilled in setting up, grading and presenting facts, problems and issues and you have efficient teaching and learning regarding the basic factors of the American way of doing business.

This new approach enlists the cooperation and confidence of educational and community leaders through objective presentation. The Council is composed of leaders in education, business and industry, labor organizations,

agriculture and consumer groups. By quotas of members with varying interests, with education in the majority, each segment of our economy has its part in setting up the program and teaching materials. Whatever diversity and controversy may exist in business relationships, these leaders are working together in the civic undertaking of giving our youth the basis for making decisions, as citizens, so necessary under and for free enterprise and government.

Membership on the Executive Board of the Council reflects the cooperative participation: Chairman, Dr. Gerhardt Rast, Superintendent of Schools in Westport; Vice-Chairmen, Dr. William H. Flaharty, Deputy Commissioner of Education, State Department of Education and Professor Urbane O. Hennen, University of Connecticut; Clerk, Philmore B. Wass, Editorial Writer, American Education Publications; Treasurer, Milan R. Cook, Assistant to the General Manager, Hartford Electric Light Co.; Members of Executive Board, Paul W. Coons, School-Community Coordinator, Hartford Public Schools, Sherman Knapp, President, Connecticut Light and Power Co., and Director of the Manufacturers Association of Connecticut, and George Poulin, President, District 26, International Association of Machinists.

The Executive Secretary is Fred D. Wish, Jr., for many years superintendent of schools in Hartford, and in 1951-52, Assistant Director of the national organization, the Joint Council on Economic Education in New York City.

When its roster is filled the Council will be composed of thirty-five persons whose major affiliation is with education; six from business and industry; six from labor organizations; six from agriculture; six from consumer groups; and ten invited without regard to their affiliation.

Financing the Program

The program has been financed for a short exploratory period by the Joint Council on Economic Education, which gets its support from the Ford Fund for Adult Education with a grant from the Committee for Economic Development for operating a "national" summer workshop in education for teachers. Continuity of the program will depend upon financial support from Connecticut individuals, companies and organizations in business and industry, labor and civic affairs. Its budget for the initial year, including a summer workshop in economic education for Connecticut teachers and administrators, is $27,000. The program for raising funds is now on under the leadership of Sherman Knapp, President of the Connecticut Light & Power Co., and chairman of the Council's Finance Committee, with the assistance of a Finance Advisory Committee composed of community leaders in various areas of the state.

Immediate Program

Major items in the Council's immediate program include: Cooperation with the University of Connecticut in sponsoring a three week's workshop in economic education; publication of teaching material for high school students on "Our Basic Resources"; and stimulating and assisting in promoting locally sponsored and directed efforts to emphasize understanding of the operation of our economy as part of the day-by-day instruction in Connecticut schools.

In its endeavors, the Council does not try to "cover the waterfront." It is concentrating on helping teachers to instruct their pupils about the operation of our economic system. It believes that effective economic understanding can come only through day-by-day activity of individual teachers. This can provide better economic understanding by the student and closer, stimulating relationship of school to community life. Council service is tailored to meet the desires of local, autonomous programs. This program is not untried. The Connecticut Council has the benefit of the assistance and experience of the national organization, the Joint Council on Economic Education which has provided similar promotion and assistance throughout the country since 1949. The Connecticut Council was really initiated by the very successful Greater Hartford Council on Economic Education which has been assisting the schools of that area since 1950. The aim of the Connecticut Council is to provide for the remainder of the state the benefits the schools of Greater Hartford are getting. It was evidence of these benefits that led me to choose this field when I resigned as superintendent of the Hartford Public Schools in 1951. The Council also has the benefit of techniques and interest developed in three summer workshops—in 1951, 1952 and 1953, operated by the University of Connecticut with the active cooperation of the Greater Hartford Council.

No Encroachment on Other Programs

The program of the Connecticut Council does not encroach upon, but rather will draw suitable material from many other efforts to provide better economic understanding through employer-employee programs, adult education programs, and the use of mass media. Interest of the schools is most encouraging. Conferences and assistance were sought by school systems long before the Council was prepared to meet such requests. Now its purpose is not only to meet such requests but also to seek acceptance of sound economic programs by all schools in the state. Anyone interested in learning about and cooperating with this program can obtain further information by communicating with Fred D. Wish, Jr., Executive Secretary, Connecticut Council for Advancement of Economic Education, P. O. Box 295, Westport (Tel.: CApital 7-5680).

Combating the Effects of Noise

(Continued from page 18)

end of air vises, a reduction from 94 to 79 decibels was achieved.

Covering metal bench tops with wood reduced the noise level by as much as 15 decibels on some operations.

At the present time, we are starting to coat tumble barrels and metal skid boxes with a tar compound. We have no idea as to how much this will reduce the noise, but we are confident that a noticeable change will be made.

This gives some idea of what can be done by a practical approach to the so-called noisy operations in a plant. It also shows that changes can often be made without spending large sums of money.

In conclusion, it is realized that there are operations such as the cleaning of castings, forging, and others where noise abatement will be more difficult. As time goes on we hope to have answers for noise abatement of these operations, based on the experience gained in our program of combating the effects of noise.

New!

VARY-TALLY

Multiple-Unit Reset Counter

DESIGNED TO COUNT ANYTHING COUNTABLE

this new Vary-Tally can be supplied in any combination up to 6 banks high, 12 units wide, with the counting units arranged compactly on stands in tiers. Now check these special features of Veeder-Root design and construction:

- Easily Readable from any Angle . . . Bold Figures Always Centered in Window . . . No Glare . . . Figures not Covered by Fingers in Operation
- Easily Portable, yet Ruggedly Built for Long Wear
- Separate Counting Units Can be Rotated like Tires on a Car, to Distribute Wear Evenly
- All Parts Corrosion-Resistant
- Working Parts of Hardened Steel
- Operation Not Affected by Extreme Heat or Cold
- Individual Tag Above Each Counter-Window — Not Strip Tabs
- Veeder-Root Quality in Every Part

Now what's on *your* mind, that Vary-Tally can help you count? Write for news sheet and prices.

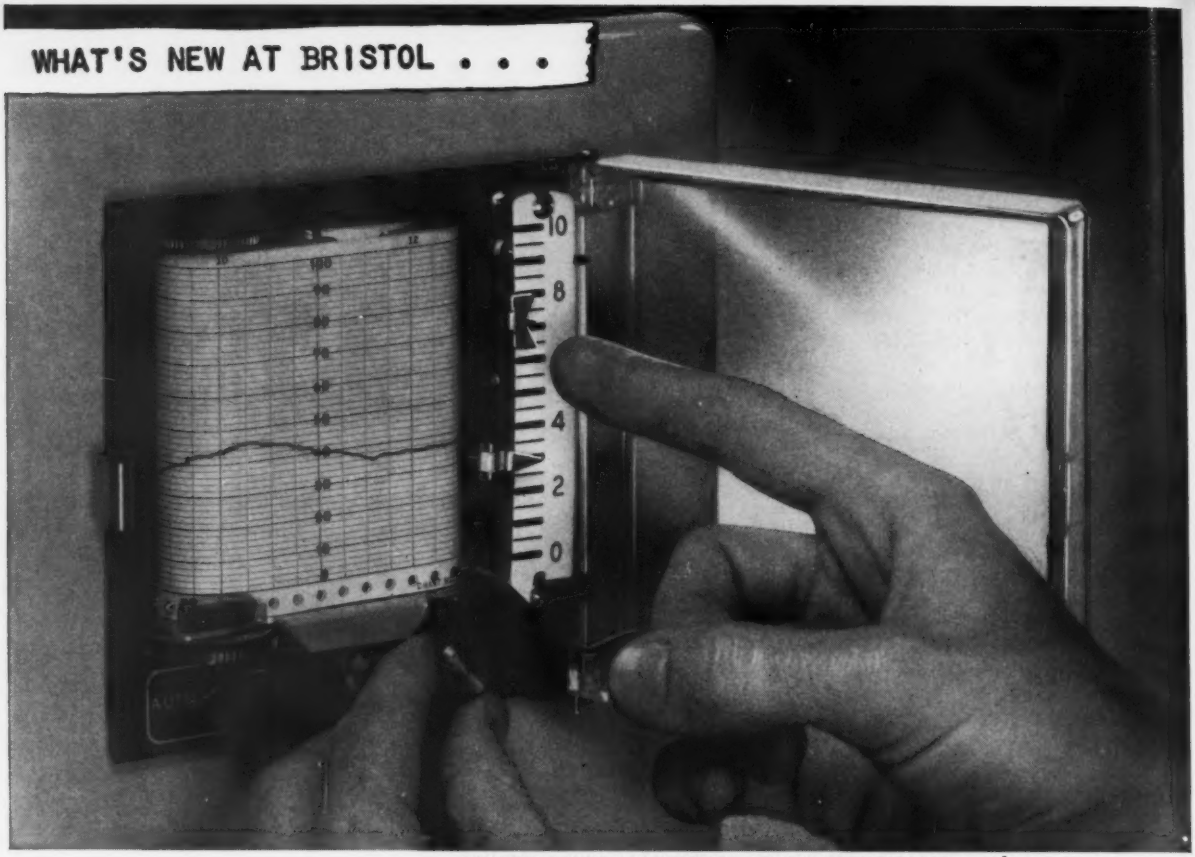
"The Name that Counts"

VEEDER-ROOT INC.

HARTFORD 2, CONNECTICUT

Chicago 6, Ill. • New York 19, N. Y. • Greenville, S. C. • Montreal 2, Canada • Dundee, Scotland • Offices and Agents in Principal Cities

WHAT'S NEW AT BRISTOL . . .



BRISTOL'S "HUMAN-ENGINEERED" METAGRAPHIC RECORDER, with its easy-to-read scale, high-visibility fluorescent pointers and shadow-proof door has earned the distinction of being the "biggest little instrument in the business."

Instrument men call Bristol's METAGRAPHIC Recorder

"... the biggest little instrument"

Sounds contradictory, but it's true. Take a look at one of our new METAGRAPHICS mounted on a panel board alongside of other instruments. The Bristol unit stands out – seems bigger than the rest – although chances are it's actually smaller (5" x 5¼"). The answer is that the Bristol instruments have been "human-engineered", making them easy to read, and clearly visible at greater distances.

The air-operated METAGRAPHIC, which records pressure, temperature, vacuum, flow, differential pressure, and liquid level, offers these big advantages:

SIMPLICITY . . . fewer moving parts, fewer adjustments, and less service required. Range changes can be made in seconds. True plug-in service.

CONTINUOUS VALVE-POSITION INDICATION . . . on same instrument scale as set-point scale, gives continuous data on control valve position—makes "bumpless" transfer possible simply by matching pointer positions – no need to read actual scale values – minimizes reading errors – speeds operations.

CONTINUOUS OPERATION . . . complete unit can be retracted for inking pen, and for set-point and zero adjustment without disturbing record or control.

Get the whole story on the "human-engineered" METAGRAPHICS – how they can help you get more accurate measurements, faster and easier. Write us today. The Bristol Company, 163 Bristol Road, Waterbury 20, Conn.

6.4.4R

BRISTOL

IT'S MADE IN CONNECTICUT

POINTS THE WAY IN HUMAN-ENGINEERED INSTRUMENTATION

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

NEWS FORUM

This department includes a digest of news and comment about Connecticut Industry of interest to management and others desiring to follow industrial news and trends.

FOUR PROMOTIONS of foremen at Seamless Rubber Company, New Haven, were made known recently by William B. Watson, vice president and factory manager.

Charles P. Cucinelli, a veteran of over fifty years at Seamless, has been named general foreman of the Mill Room and Calendering Departments. Frank N. Pellegrino, succeeds Mr. Cucinelli as foreman of the Mill Room and Calendering Departments. His new assistant foreman will be Robert J. Freeman. John Ceruzzi has been named foreman of the Bathing Cap Department.

Mr. Pellegrino has been employed at Seamless for 17 years, and Mr. Freeman has been with the firm since 1941. Mr. Ceruzzi, who has been assistant foreman in the Bathing Cap Department for the past two years, has a record of 27 years of service with the company.

★ ★ ★

HARRY F. BURGESS has recently retired as secretary of the Union Hardware Co. of Torrington. His career with the sporting goods manufacturing firm began in 1909, during which he has served as purchasing agent, export manager, assistant secretary and assistant treasurer. He was elected secretary in 1928 and served as vice president from 1941 to 1946. He has been a member of the firm's board of directors since 1924.

Mr. Burgess was born in New Haven, and graduated from Yale College in 1904. He also studied at the University of Berlin, and the University of Caen, in France.

★ ★ ★

IRVING H. HOFFMANN, works manager of the American Brass Company, Ansonia branch, died recently at Griffin Hospital, Derby.

Mr. Hoffmann began his career with the company in the production branch in 1923. In 1926 he was transferred to the wire and cable department of the plant where he was general foreman until his promotion to production supervisor of the entire branch in 1943. He was elevated to assistant works manager in 1951 and on January 1, 1953, he assumed the post of works manager of the entire branch.

The Cover

THIS month's cover photo by Bo and Joan Steffanson is a snow scene of an old railroad in Simsbury with the steeple of the Simsbury Congregational Church visible in the background. This railroad, which once served Simsbury, Canton, New Hartford, Canaan and other way stations to its terminus at Campbell Hill, New York, is now used by the Ensign Bickford Company, of Simsbury, to transport explosives to and from its "powder farm."

HARRY E. BYMAN, who for many years was in charge of important personnel assignments at the New Departure Division of General Motors, died at Meriden Hospital recently after a long illness.

Born in Finland, Mr. Byman came to Meriden 46 years ago. A graduate of Morse Business College in Hartford, he was also a veteran of World War I, having served with the U. S. Navy from 1917 to 1919.

Upon his discharge from the Navy, Mr. Byman entered the employ of the Bristol New Departure plant. He transferred to the Meriden plant in 1922 when he became secretary to the late Charles M. Gearing, Meriden plant manager.

PROGRESS DEMANDS

A NAME CHANGE—Founded in 1901, "New Haven" has grown and expanded to become one of the major manufacturers of folding cartons, producing with its subsidiary, The Bartgis Brothers Company, over 100,000 tons of high quality paperboard annually, of which 75% is converted into printed folding cartons.

N NEW HAVEN H

THE NEW HAVEN BOARD & CARTON COMPANY

NEW HAVEN 8, CONNECTICUT

Formerly THE NEW HAVEN PULP AND BOARD COMPANY

Branch Office: GRAYBAR BUILDING, NEW YORK CITY

CHAMPLIN
WOODEN
BOXES *for Safe, Sure Delivery*

- All standard styles
- Specialists in hard-to-package items
- Free consulting and design service

Phone: JAckson 7-9217

The Champlin Box Co.
"Boxed in Wood - Boxed for Good"
45 Bartholomew Ave., Hartford 6, Conn.

GRAY AUDOGRAPH dictating machines undergo final inspection as they come off the assembly line at The Gray Manufacturing Company in Hartford. The dictating machine industry is experiencing its greatest boom, due to the versatility of modern machines and savings made by mechanization of business office procedures.

HARTFORD *Special*
...the best buy in the long run

AUTOMATIC DRILLING & TAPPING MACHINES
AUTOMATIC THREAD ROLLERS
"SUPER - SPACERS"
DIE POLISHING MACHINES
General Contract Machine Work

THE HARTFORD SPECIAL MACHINERY CO.
HARTFORD 12, CONNECTICUT

JACK

WHEN TRADITION . . . calls for an Old Fashioned container, call Jack Wittstein for Corrugated and Solid Fibre Boxes, P.O.P. Displays and Sales Aids. Call

JACK WITTSTEIN
Box 1348, 56 Church Street
MAin 4-5121, New Haven 5, Conn.

WORKERS AND MEMBERS of the management of the American Velvet Company, Stonington, received their proportionate share of profits of the company at Christmas for the fourteenth consecutive year.

Each of the 487 workers and members of management received checks which averaged approximately $600 per person in take-home payments on a basis of 24.29 per cent of each dollar he earned during 1953.

The payments were made under the unique profit-sharing plan between A. Wimpfheimer and Bros., Inc., operators of the mill and its "partners in velvet," Local 110, Textile Workers Union of America, CIO.

Under the plan, two-thirds of each person's share was handed out in checks while the remaining one-third goes into a retirement fund set up in each worker's name in a local bank.

★ ★ ★

E. CLARKE QUACKENBUSH, prominent electrical engineer and specialist on electronic connectors, has recently joined Whitney Blake Company, New Haven, manufacturers of insulated wire and cable and custom-built cord sets.

John Brown Cook, president of the company, announced that Mr. Quackenbush will serve as manager of a newly formed Electronics Division, which will develop, manufacture and

Designers and Manufacturers
of Tools, Dies, Jigs, Fixtures and Gages
Jig Boring and Jig Grinding
Precision Form Grinding
Planing, Boring, Turning
Cincinnati, Lucas and Bullard Machines

We build Special Machinery and Parts
Welded Fabrications
We will do your Stampings and Spot Welding
Progressive — Swedging
Broaching — Drawing
Short Runs — Long Runs

THE
SWAN TOOL & MACHINE CO.
30 Bartholomew Avenue
HARTFORD 6, CONNECTICUT

ALLEN
RUSSELL &
ALLEN
31 Lewis St. Hartford, Conn.

Insurance

Over 40 Years of Service to Connecticut Manufacturers

THE HENRY SOUTHER ENGINEERING CO.

Engineering & Chemical Service

Water Purification

Industrial Waste Disposal

Research Facilities for Industry

Hartford, Conn.

sell electronic connectors and assemblies.

Before joining Whitney Blake Company, Mr. Quackenbush was engineer in charge of the Eastern Division of Cannon Electric Company. He set up this company's plant in East Haven, and was in charge of its operation for several years.

★ ★ ★

THE DERBY, Danbury and Wallingford utilities companies, merged under a special charter by the General Assembly, began operations on January 1 under the name of the Housatonic Public Service Corporation. New officers of the corporation are as follows:

Harold R. Bacon, president; Morris L. Sindeband, chairman of the board; Richard Gretsch, president of the Danbury and Bethel Gas and Electric Company, executive vice president; Herman Beckitt of Danbury, secretary; Walter Bonn, assistant secretary; Philip J. Franz, treasurer; Christian Retnauer and Miss Julia M. Barry of the Derby Company, assistant treasurers.

★ ★ ★

WILLIAM T. COHOLAN, manager of steel sales at the Stanley Works, New Britain, for the past 36 years, died recently after a lingering illness.

Mr. Coholan started "on the ground floor" at the steel mill of the Stanley works in 1907, after graduating from Sheffield Scientific School of Yale University. He worked his way into selling in 1912 and became manager of steel sales in 1917, a position he held until his death.

During those years Mr. Coholan's advice was sought by most of the metal working concerns of New England and nearby states. His circle of friends in the industry was extensive.

★ ★ ★

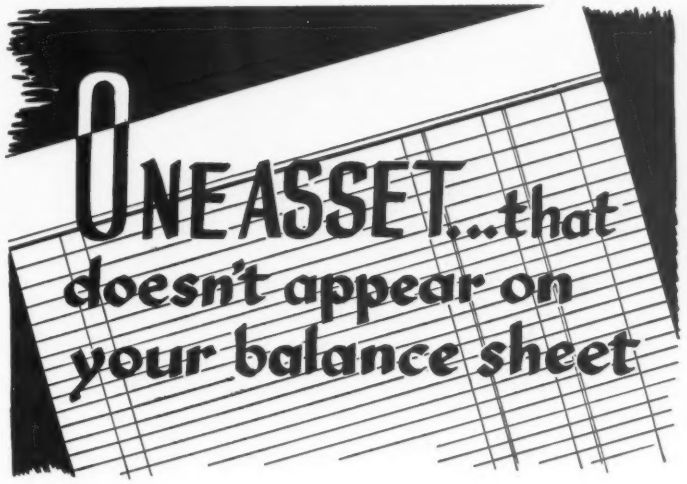
THE TORRINGTON COMPANY has announced an important new product of its subsidiary factory, the Westfield Manufacturing Co., in Westfield, Massachusetts, makers of the famous 76-year-old Columbia brand of bicycles.

The new product is a collapsible "baby stroller," which merchandising specialists on juvenile lines forecast will have a tremendous and immediate market, not only because of its revolutionary design, but also because it can be retailed at a popular price.

The stroller, which will be sold under the name of the Columbia Tuk-A-Way, was invented in Australia and has been sold there highly successfully. Recently the product was introduced into England and some months ago the Westfield Manufacturing Co. secured manufacturing and selling rights for the United States, U. S. possessions, Canada and Cuba.

HOWARD EMERSON CHRISTIE, founder and president of the Christie Plating Co. of Groton, died recently after an extended illness.

A lifelong resident of Groton, he founded the plating firm in 1931 and managed it until he was taken seriously ill a year ago. He was also a prominent



THE dollar and cents value of a Keyman in your business does not show on your balance sheet.

Without the Keyman a business is worth little more than its liquidation value . . . for it is the Keymen in management who are responsible for the greater part of profits.

Your business, no doubt, is protected against the loss of physical assets. But are you also protected against the loss of profits that are dependent upon the technical ability, administrative brains, financial know-how, good will and sales ability of your Keymen?

We are Specialists in Business Life Insurance. Send for our free booklet, "Protecting Business Profits," which will show how the Connecticut Mutual Keyman Insurance Plan can protect you against the loss of that asset which does not appear on your balance sheet--the men whose abilities produce your profits.

RALPH H. LOVE AGENCY
75 Pearl Street • Hartford, Conn.

The Connecticut Mutual
LIFE INSURANCE COMPANY • Hartford

4LV54

VETERAN employees of Heppenstall Co., Bridgeport, including a father and three sons whose combined service totals 133 years, were honored at a dinner recently. Shown in the picture are, from left, Samuel DellaDonna, 36 years of service; Alfred J. Porter, general manager; R. B. Heppenstall, president; Anthony DellaDonna, 47 years of service; and his sons Peter and John, who have served 27 and 23 years respectively.

cattle breeder and raised championship Ayrshire and Brown Swiss cattle at his farm in North Stonington, which is managed by his son, Robert Christie.

Mr. Christie is survived by his wife, two sons, three brothers and two sisters.

★ ★ ★

ARTHUR K. STEWART, manager of the Willimantic plant of the American Thread Company, has announced that John B. Love has been appointed assistant manager.

Mr. Love has been assistant to the agent of the mills for two years and prior to that time has been a management trainee, having joined the company upon his graduation from the Harvard Graduate School of Business Administration in 1947.

★ ★ ★

SCHOLARSHIPS for employees and the sons and daughters of employees of the Bristol Brass Corporation, and possibly for other qualified young people of the Bristol and surrounding area, were announced recently by Roger E. Gay, president.

Employees and sons and daughters of Bristol Brass employees will be given preference in the scholarship program, with others given consideration if there are no qualified candidates available among employees and their families.

The program has been set up by the Bristol Brass Foundation, Inc., a nonprofit organization established last year to receive and administer funds for scientific, educational, literary, religi-

TYLER
EQUIPMENT
CORPORATION

HOUGH – *Payloaders*
– *Tractors*

CONNECTICUT and WESTERN MASSACHUSETTS

251 SHAKER ROAD
EAST LONGMEADOW, MASS.
Tel. Laurel 5-3375

61 W. MAIN ST.
PLANTSVILLE, CONN.
Tel. Southington 8-7331

Finishes the Job Faster —

Fiber on inside for heavy sweeping

Horsehair on outside for fine dust

Built to Move Fine Dust Simultaneously with Heavy Refuse —

You need stiff fiber to give the brush more body — so it will move the heavier refuse. See how fiber is mixed with grey horsehair — all through the center of this Fuller Brush — to combine strength with thorough sweeping.

You need this horsehair to sweep the fine dust. Notice the all-horsehair tufts in the outside rows. This is why the Fuller Brush sweeps well on a variety of different floor surfaces... does the work with less backtracking . . . finishes the job faster.

Write for a demonstration on your own floors. Simply mail the coupon today.

INDUSTRIAL Fuller BRUSH CO. DIVISION

The Fuller Brush Company
Industrial Division
3616 Main Street
Hartford 2, Connecticut

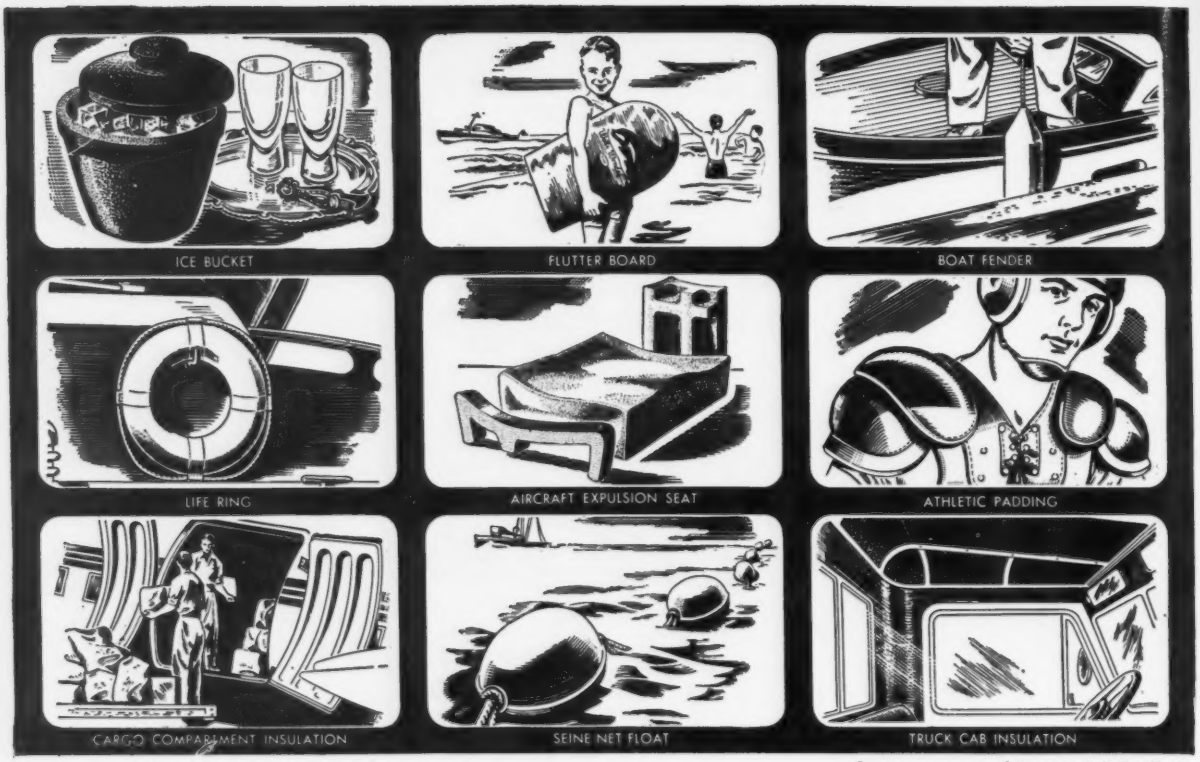
Yes, I'd like you to send a man over to show me how the Fuller Floor Brush will sweep my floors faster . . . with less backtracking.

NAME.....

COMPANY.....TITLE.....

Street.....

City.....State.....



Some present uses of Spongex Cellular Plastic

New material does old jobs better ... makes new jobs possible

Spongex cellular plastic (expanded unicellular poley-vinyl chloride) performs outstandingly as a protective cushioning, flotation or insulation material.

This new material absorbs shocks with little, if any, rebound. Its light weight and ruggedness make it just about ideal for use in the aircraft, automotive and marine fields.

Perhaps Spongex cellular plastic offers a solution to one of your problems. Write to us today for complete information. We'll be glad to help.

Properties of Spongex Cellular Plastic

Insulates • Floats • Cushions • Low water absorption • Absorbs shock with minimum rebound • Unaffected by salt water or sunlight • Unaffected by oils, acids, perspiration • Fire-retardant • Has K factor of .20 • Needs no paint, finish or protective cover • Can be cut or molded to shape • Won't absorb odors • Non-staining • Lightweight • Non-toxic.

SPONGEX® Cellular Rubber

for cushioning, insulating, shock absorption, sound and vibration damping, gasketing, sealing, weatherstripping and dust proofing.

THE SPONGE RUBBER PRODUCTS COMPANY 18 Derby Place, Shelton, Conn.

ous, philanthropic and charitable purposes.

For the first year, $2,000 is being made available for the scholarships, with the maximum amount limited to $1,000 for each applicant. The scholarships will be awarded on the basis of merit. First consideration will be given to scholastic ability as indicated by college or school records. Also considered will be the financial need, the character and personality of the applicant as evidenced by his participation in school and community activities.

★ ★ ★

ELECTION of Frederick O. Detweiler as president of Chance-Vought Aircraft, Inc., has been announced. Mr. Detweiler had been general manager of Chance-Vought Aircraft division, United Aircraft Corporation. Under the terms of a recently announced plan, however, Chance-Vought is separating from United Aircraft and, during this year, will become a completely independent corporation.

H. M. Horner, president of United Aircraft Corporation, has been named chairman of the Chance-Vought board of directors.

★ ★ ★

THE SECOND ANNUAL civic award of the Willimantic Police Benevolent Association has been given to Mrs. Josephine Lauter-Greer, president of the Electro-Motive Manufacturing Company, Willimantic.

The first award of the association was given to E. Burton Shaw, Sr., vice president and general manager of The American Thread Company, and president of the Manufacturers Association of Connecticut.

The award committee revealed that Mrs. Greer was chosen because of her many activities toward the advancement and betterment of the community.

★ ★ ★

FORMAL TRANSFER to the Bridgeport Brass Co. of the lease of the Air Force Materiel Command's huge aluminum extrusion and forging plant in Adrian, Michigan, has now been completed.

Acquisition of the plant marks the Brass company's first large-scale move into the aluminum field. The Adrian plant is equipped with 16 extrusion presses of various sizes. The company will produce aluminum extrusions, tubes and forgings for the aircraft industry for military planes, as well as aluminum extrusions, rod, wire and tubing for commercial customers.

★ ★ ★

GROUND BREAKING CEREMONIES took place recently at the site chosen for the new $500,000 Curtis 1000, Inc. plant on the east side of Vanderbilt Avenue, West Hartford.

The new plant will be constructed of steel frame masonry with a steel roof deck, and will contain offices, plant, artographic room and lounges for men and women.

THE WARREN WOOLEN COMPANY, Stafford Springs, has announced that it is again offering a $500 scholarship to a student in the 1954 graduating class of Stafford High School. The grant may go to a senior who shows unusual ability and aptitude to enter into more advanced studies.

★ ★ ★

FERDINAND E. ENDRISS, treasurer, National Folding Box Company, New Haven, has been elected controller of the Federal Paper Board Com-

BEST IN '53
STILL BETTER IN '54

IS THE BEST
SURGICAL-MEDICAL CARE
PLAN FOR YOUR FIRM

IN 1953
$5,300,000 PAID
FOR 100,000 CLAIMS

The Blue Shield Plan CMS for Connecticut
CONNECTICUT MEDICAL SERVICE, INC.
SPONSORED BY THE CONNECTICUT STATE MEDICAL SOCIETY
205 WHITNEY AVENUE, P. O. BOX 1930 • NEW HAVEN 9, CONNECTICUT

W. T. Smith
COMPANY
CONSULTING ENGINEERS
82 CONNECTICUT AVE.
NORWALK, CONN.

Specializing in:

- CONTROL OF PROCESS EQUIPMENT *by: pneumatic, electric, electronic, thermal activation.*
- CONTROL OF PROCESS AIR CONDITIONS: *Fume & dust removal, air conditioning, etc.*

SURVEYS

DESIGN & CONSULTATION

Since 1934

ROGER SHERMAN

Specializes in

- EQUIPMENT MOVING
- STEEL ERECTION
- CRANE RENTAL
- HAULING & RIGGING

A great variety of equipment, well-trained personnel, and highly developed methods assure your complete satisfaction. Call today —

ROGER SHERMAN
TRANSFER COMPANY
469 Connecticut Blvd.
E. Hartford, Conn.
TELEPHONES
HARTFORD 8-4106 SPRINGFIELD 6-4177
NEW HAVEN MAin 4-1368 ALBANY, N. Y. 3-3101

pany, Inc. The election has been announced by John R. Kennedy, president of Federal Paper Board Company, Inc., which purchased control of the New Haven concern last year. Mr. Endriss will make his headquarters at the parent company's executive offices in Bogota, New Jersey.

★ ★ ★

THE APPOINTMENT of Lloyd C. Ahlgren as treasurer of The Perkin-Elmer Corporation, Norwalk, has been announced by Richard S. Perkin, president.

Mr. Ahlgren has been with Perkin-Elmer as comptroller since 1949. Formerly associated with Price, Waterhouse & Company, he is a graduate of Harvard Business School.

★ ★ ★

MANUFACTURING OPERATIONS at the new ultra-modern plant of the Connecticut Container Corporation, and its affiliate, D. L. & D. Container Corp. in North Haven are now completely under way, according to an announcement by Lawrence Perkins, president.

The new plant is the largest industrial building to be constructed in North Haven since the completion of the $10,000,000 Pratt & Whitney aircraft installation. It measures 180 by 200 feet on a seven acre plot. It is said to incorporate many new and unusual ideas in box plant design.

It is the first completely conveyorized corrugated container factory in New England—and one of only five such plants in the country with a single-line production layout that runs from receiving to shipping departments without a break.

The Connecticut Container Corporation manufactures corrugated shipping containers, die cuts and corrugated specialties in color.

★ ★ ★

JOSEPH LeMAY, who started with the Farrel-Birmingham Company, Ansonia, as an office boy, has been named treasurer of the concern, succeeding Frederick M. Drew, retired.

When Mr. LeMay joined the company he started in Derby with the Birmingham Iron Foundry, which is now the Derby plant of the F-B Company. He was promoted to various posts with the cost accounting department, and in 1945 was named controller. Two years later he was named general controller, and was elected to the board of directors of the company. In 1950 he became company secretary and assistant treasurer.

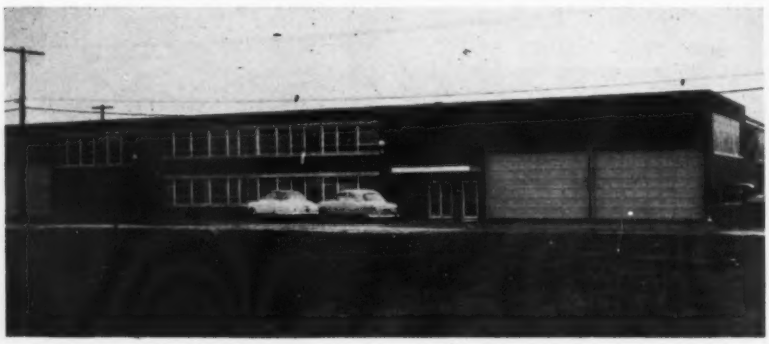
Replacing Mr. LeMay as assistant treasurer is Howard H. Parker, who has been assistant to the treasurer for the past nine years.

★ ★ ★

AFTER 20 years as president and general manager of the Remington Arms Company, Inc., Bridgeport, Charles K. Davis retired on January 31.

Maxwell R. Warden, the firm's vice president and assistant general manager has been named to the top post to succeed Mr. Davis.

A veteran of nearly 39 years in various executive capacities with E. I. duPont de Nemours and company, Mr. Davis became Remington's president and general manager in June 1933, when duPont acquired the controlling interest in the Bridgeport munitions firm.



WITH THE OPENING of its new plant, the Connecticut Container Corporation completed another major step in its long-range expansion program. Its increased facilities at the North Haven site will permit the company to serve new customers in Rhode Island and Massachusetts.

Mr. Warden, as a member of the engineering department of duPont, organized and supervised the engineering and construction of the Utah Ordnance plant, built and operated for the government by the Remington Arms company during World War II. Upon completion of that project he joined Remington as works manager and resident engineer of the Utah operation. In 1942 he became assistant manager of Remington's Military Production Division.

He served successively as assistant manager of the production division, manager and director of production, vice president and director of manufacturing, and became assistant general manager in 1949.

★ ★ ★

DONALD S. SAMMIS, vice president of the Underwood Corporation, New York, and the firm's director of manufacturing, has been succeeded in the latter post by David J. Crombie. Mr. Sammis intends to retire near the end of this year.

A company spokesman said Mr. Sammis is available now for special assignments to act in an advisory capacity in matters pertaining to the business of the corporation.

Mr. Crombie, who prior to assuming his new post, was assistant to Mr. Sammis and previously assistant works manager at Hartford, first joined Underwood as a mail clerk in 1929. A graduate of Fordham University, in 1938, Mr. Crombie served as an instructor and received his master's degree from Fordham in 1940.

★ ★ ★

A NEW LINE of hermetically-sealed Time Delay Relays are now being put into production by the A. W. Haydon Company, Waterbury. Designed to take up less space than previously required, these Time Delay Relays can be supplied with 50, 60, or 400 cycle A.C. or governed or standard D.C. motors. Close accuracy and low consumption are featured.

The unit is enclosed in a lightweight aluminum hermetic housing 2½" in diameter. The basic length for a single switch unit is 2 15/16 inches.

★ ★ ★

THE ADDITION of a new, versatile automatic model to its line of standard, manually-operated units has been announced by The Cro-Plate Co., Inc., 747 Windsor Street, Hartford, manu-

JOHN J. PLOCAR *Company**

MANAGEMENT CONSULTANTS

SPECIALIZING IN MANAGEMENT PROBLEMS OF SMALL AND MEDIUM SIZED COMPANIES

- **Organization**
- **Methods and Incentives**
- **Job Evaluation**
- **Production Control**
- **Factory Layout**
- **Cost and Budgets**
- **Foremen's Bonus**
- **Office Procedures**
- **Personnel Administration**

UPON REQUEST WE WILL GLADLY SEND, WITHOUT OBLIGATION, A COPY OF OUR FREE BOOKLET, "AN IMPLEMENT TO SOUND MANAGEMENT."

*

STAMFORD, CONNECTICUT

MATERIAL HANDLING EQUIPMENT

O. HOLM-HANSEN

FAIRFIELD, CONN.

TEL. 9-1728

BOOSTERS

POWRLIFTS

LIFT TRUCKS

HAND TRUCKS

TOTE BOXES

CONVEYOR SYSTEMS ENGINEERED

STANDARD MATERIAL HANDLING EQUIPMENT

DROP US A LINE OR CALL AND OUR REPRESENTATIVE WILL CALL

Connecticut Representative For

CONVEYOR SYSTEMS INC.

LANGLEY MFG. CO.

CONVEYOR SYSTEMS

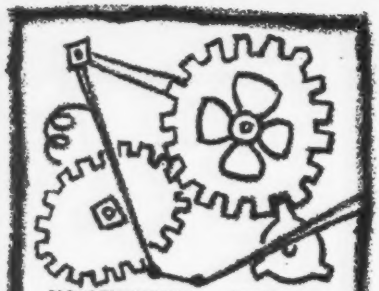
Gravity Conveyors

CASTERS

HOISTS

SKIDS

DOCK BOARDS



NO GIMMICKS — NO BALONEY — NO GIMCRACKS . . .
just expertly designed containers from Jack Wittstein for the P. A. who wants economical, safe, eye appealing shipping containers. Call
JACK WITTSTEIN
Box 1348, 56 Church Street
MAin 4-5121, New Haven 5, Conn.

facturers of pressure blast wet-blasting equipment.

Known as the Pressure Blast Roto-Matic, this new concept in wet-blasting equipment was designed for the elimination of hand filing, grinding, wire brushing and chemical cleaning of small metal parts such as castings, forgings, machined items, stampings, extrusions, etc. and various plastic and ceramic components.

In operation, the operator is seated at the front of the unit and merely loads and unloads work-pieces from the rotating table which incorporated appropriate work holding fixtures. The interior of the cabinet is divided into three chambers as follows: the blast chamber where fixed position guns finish the work in part or entirely; the rinse chamber where abrasive slurry is rinsed from the work; the air-dry chamber where the work pieces are dried.

★ ★ ★

EDWARD J. McDONALD has been promoted to the post of treasurer and secretary of the Seamless Rubber Company, according to an announcement by Arthur R. Gow, president.

He succeeds Wallace C. Hutton, who has been treasurer of Seamless for 41 years. Mr. Hutton will continue in office as vice president of the company. Edward C. Crotty was named as assistant treasurer and assistant secretary of the company.

Mr. McDonald joined the New Haven firm in 1919 and in 1929 was named assistant treasurer and secretary of the company.

Mr. Crotty joined Seamless in 1948 in the production office. Subsequently he worked in sales service and since 1951 has been identified with the treasurer's office. In January 1953 he was appointed assistant credit manager of the company.

★ ★ ★

HARRY SMITH, JR., formerly executive vice president of the Middletown Chamber of Commerce, and secretary-treasurer of the Merchants Division, has recently been named general manager of The Waverly Printing Co., Inc., Portland.

Mr. Smith was formerly executive secretary of the Society of Motion Picture and Television Engineers and editor of its monthly technical journal. He was also associated with the Florida State Chamber of Commerce and the Motion Picture Association of America.

CHASE
the Nation's Headquarters for BRASS & COPPER
CHASE BRASS & COPPER CO.
WATERBURY 20 CONNECTICUT

STEEL CASTINGS
From an ounce to 1000 lbs. each.
Try us for fast delivery when your needs are urgent.
THE NUTMEG CRUCIBLE STEEL COMPANY
BRANFORD CONNECTICUT

S-E-MUCHEMORE ASSOCIATES
CONSULTING ENGINEERS
19 River Street
Stamford, Connecticut
INDUSTRIAL—STRUCTURAL
MECHANICAL—ELECTRICAL
AIR-CONDITIONING
INVESTIGATIONS—REPORTS
DESIGN & CONSULTATION
ON INDUSTRIAL PLANTS
Serving Industry for 25 years

Mimeographing Direct Mail Service . . .
"EVERY COPY AS CLEAR AS ORIGINAL"
Size of copy—anything from 3 x 5 cards to 17½ x 14½ stock
6 distinct and beautiful colors
Rule Forms—Mimeo Art Work
Illustrations—Special Lettering
Draftsman's india ink—mechanical drawings
"Yes—we'll run stencils cut in your plant"
Write or Call:
GERTRUDE C. LUCAS
7 Peck Street, North Haven, Conn.
Tel. New Haven—CEdar 9-0620

Ideas Surveys

Plans Promotions
RICHARD S. WINSHIP
NEWTOWN, CONN.
★
Sales and Merchandising Consultant

GAIR can help PROMOTE YOUR PRODUCT with eye-appeal PRINTING

Attractively printed Gair shipping boxes double as sales promotion aids — giving prominent display to brand names while traveling through the channels of distribution. Prospects along the way — from factory to warehouse, to store, to home — see these sales messages.

Look around. You'll notice that products from paints to peanuts, from soaps to stoves carry colorful, well-printed identification on their shipping boxes. What about yours?

Remember, this traveling display is economical. You own the "billboards" . . . for just the cost of plates and printing you add a strong link to your promotional chain.

To learn how your shipping box can double as a sales promotion aid, check with the Gair plant nearest you. Learn, too, how Gair's assured supply source, engineering ability and delivery service help give you the best in corrugated or solid fibre shipping boxes.

Ask for a copy of the Shipping Case Handbook.

CAMBRIDGE, MASS. • CLEVELAND, OHIO • HOLYOKE, MASS. • MARTINSVILLE, VA. • NO. TONAWANDA, N. Y.
PHILADELPHIA, PA. • PORTLAND, CONN. • RICHMOND, VA. • SYRACUSE, N. Y. • TETERBORO, N. J.

GAIR

SHIPPING CONTAINERS
FOLDING CARTONS
PAPERBOARD

ROBERT GAIR COMPANY, INC. • 155 EAST 44th STREET • NEW YORK 17

DEVELOPMENT of a new accounting machine which uses a narrow check stub and reduces the overall size of pay statements by at least eight inches was announced recently by Underwood Corporation.

The simplified Underwood Sundstrand payroll accounting machine does away with horizontal "spread" statements of the telescopic folding variety and lists as many as 16 earnings and deductions vertically on a stub just three and a half inches wide.

New principles of design permit automatic selection of registers. The need to depress register selection keys for earnings, deductions, total pay and net amounts is eliminated. After the check is written it is automatically ejected and stacked numerically in a check bin. Other features include automatic voiding of pay checks when deductions exceed earnings, automatic consecutive numbering of checks, automatic printing of dates, automatic form alignment, and automatic check protection.

★ ★ ★

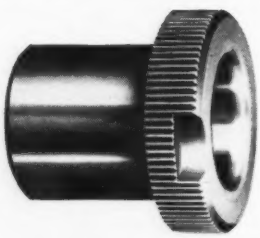
THE TORRINGTON MANUFACTURING COMPANY has announced development of a 20-inch offset fan blade designed to reduce the required thickness of assembled air-moving appliances by curling back around a motor instead of protruding out from its motor shaft.

D. B. Robinson, vice president of the firm, said the new fan blades are particularly adapted to use in more compact models of direct drive window ventilators. He revealed that the new product, designated as the "AIRistocrat YO-20 Inch Offset Fan" was developed during an 18-month research program. The new fan blade is being manufactured in various pitches depending upon unit design requirements.

THE NEW Underwood Sundstrand payroll accounting machine.

Why chase Drill Bushings!

UNIVERSAL OFFERS
STANDARDS FROM STOCK



A Telephone order will demonstrate the efficiency of our service.

FOR OVERNIGHT DELIVERY CALL:

NICKSON TOOL SALES CO.

94 Broadway, North Haven, Conn.

Phone CEdar 9-0574

Teletype Facilities TWXNH 592

THE ELECTION of Arnold Jordan Wilson to the board of directors of Sargent & Company, New Haven, was announced recently by board chairman Murray Sargent. Mr. Wilson, who will serve as a member of the board's executive committee, is a resident of North Woodbury, and a retired president of General Time, Inc.

Mr. Wilson retired last April from the presidency of General Time, Inc., after 10 years of service in that post. He is now a director and consultant for that firm.

★ ★ ★

FOR THE FOURTH consecutive year, Pitney-Bowes, Inc., Stamford, has been certified by the American Institute of Management, New York, as "excellently managed."

Further, according to Jackson Martindell, president of the institute, the company was rated as being in the top fourth of the 348 companies in the United States and Canada which it found eligible to receive the designation for the year 1953, out of 3,000 leading concerns whose methods were evaluated.

When auditing a management, Mr. Martindell explained, the institute uses a point system for rating 10 key factors in each company—economic function, corporate structure, health of earnings growth, fairness to stockholders, directorate analysis, research and development, fiscal policies, production efficiency, sales vigor and executive evaluation.

★ ★ ★

AT A MEETING of the Directors of The E. Ingraham Co., held recently at the company's offices in Bristol, Robert L. Tetro, who has been controller of the company since 1947, was elected executive vice president. James R. Lombard was appointed controller to succeed Mr. Tetro.

Mr. Tetro has been in the employ of the company since 1934. He is a graduate of The Bristol High School and Bentley School of Accounting and Finance. He is a member of the Controllers Institute of America, a past president of the Hartford Chapter of the National Association of Cost Accountants, and is now serving as a director on its National Board.

Mr. Lombard has been employed by The E. Ingraham Co. since January, 1948 as an assistant to the controller.

★ ★ ★

ALEX WELCH STANLEY, 81, one of Connecticut's outstanding manufacturers, a former president of the Stanley Rule and Level Company, New Britain, and director of the Stanley Works for 33 years, died recently at his winter residence in Ponte Vedra Beach, Florida.

Under Mr. Stanley, first as secretary of the rule and level company, then as president from 1911 to 1920, the firm became one of the leading tool manufacturers in the world. It was during his activity that the company acquired factories in Canada, Vermont, New York, Plantsville and Bridgeport, Conn. By the time it merged with The Stanley Works, the Stanley Rule and Level Co. was the manufacturer of the largest line of woodworking tools of any corporation in the world. From 1920 until his death, Mr. Stanley was a director of The Stanley Works and president of the Stanley Securities Co.

Home of the Best in Banking for BUSINESS

That's why so many fine firms use

HARTFORD NATIONAL

Connecticut's Largest Bank

HARTFORD NATIONAL BANK & TRUST COMPANY • EST. 1792 • MEMBER FDIC

Bank on the BEST in banking—at every Hartford National Office!

THE WILCOX LACE CORPORATION, Middletown, has announced the election of Matthew F. Birnbaum as president. He succeeds his father, Leon Birnbaum, who becomes chairman of the board of directors and remains chief executive officer.

Robert J. Birnbaum, vice president, has assumed the additional office of secretary formerly held by his brother.

★ ★ ★

THE TOOL DIVISION of Peck, Stow & Wilcox Co. will be moved to the Hartford plant of the Billings & Spencer Co., according to a recent announcement by Roland J. Ahern, president of the Hartford firm.

Billings & Spencer last September acquired control of Peck, Stow & Wilcox, manufacturers of hand tools and sheet metal working machinery. Forging operations were moved to Hartford some months ago.

What's Business Interruption Insurance?

It's insurance that protects against loss of company earnings (*net profits* as well as fixed expenses) due to interruption of such earnings by a fire, explosion or similar disaster. This type of policy provides the earnings which the assured would have enjoyed had there been no interruption.

The cost? It's surprisingly low! A representative of the Vreeland Co. will gladly call on you to give you detailed information . . . at no obligation.

Write for free literature describing Business Interruption Insurance. A condensed work sheet is included to help in computing your own company's needs.

K·M·V K. M. VREELAND CO. • INSURANCE

75 PEARL STREET • HARTFORD • CONN.

Tel. JAckson 5-1471

★ ★ ★

THE HENRY G. THOMPSON & SON CO. of New Haven, manufacturers of Milford hack and band saw blades, has announced that a new, improved version of their Atom-lube lubricating and coolant system is now available.

Originally introduced in early 1952, the Atom-lube uses a powerful air jet to atomize any desired cooling or lubricating liquid from water to heavy machine oils.

The Atom-lube was formerly equipped with a nozzle of soft copper tubing that could be bent to direct the vapor spray to the edge of the cutting tool at the most efficient angle. This tube has been replaced with a 12″ nozzle of flexible tubing provided with two interchangeable inner tubes. One, made of copper, is used where the nozzle is seldom readjusted; the other, of flexible plastic, is recommended where the position of the nozzle must be adjusted frequently.

★ ★ ★

TWO EXECUTIVE promotions were announced by Austin Goodyear, vice president and general manager of the rubber and conveyors division of Hewitt-Robins, Inc. The appointees are F. L. Griffith, Jr., promoted to the newly created post of general sales manager of the rubber and conveyors divisions, with headquarters in Stamford, and F. W. Blanchard, promoted to the newly created post of manager of operations of the industrial rubber division in Buffalo.

Mr. Griffith was formerly assistant to the general manager of the industrial rubber and conveyor divisions. He is a graduate of Cornell University, and joined the company in 1949. Mr. Blanchard, a graduate of Lehigh University, joined the company in 1936 as an engineer and draftsman in the industrial rubber plant at Buffalo, subsequently becoming plant engineer, chief engineer, and, in 1945, factory manager.

WITNESSES at the signing of a two-year contract between the Russell Manufacturing Company and the Narrow Fabric Textile Federal Union, are Commissioner of Labor John J. Egan and Governor John Lodge, seated at the left. Signing the contract are Arthur J. LaBarge, president of the union, and Amor P. Smith, executive vice president of Russell. Also seated is Kenneth E. Augur, recording secretary of the union. Standing in the background are Frank Mazzotta, Joseph W. Carta, Harry T. Clew, A. Paul Smith, Jr., Gustav Walters, William J. Donovan and Salvatore Scirpo.

SPECIAL CEREMONIES with Governor John Lodge and State Labor Commissioner John J. Egan as honorary witnesses marked the signing of a new two-year contract between representatives of The Russell Manufacturing Company, Middletown, and the Narrow Fabric Textile Federal Union, Number 21577, an A. F. of L. affiliate. The signing occurred on the 20th anniversary of the first agreement between the two groups.

The signing of the new contract highlighted the twenty-year record of unblemished relations between the Russell Manufacturing Company and the A. F. of L. affiliate union and revealed that the company and the union were among the first in the country to sign an agreement that related wages to the U. S. Labor Bureau's cost of living index.

HOW MUCH will you spend for advertising this year? Here is what the rest of the firms in the country are planning: 75% will spend more in 1954; 21% will spend about the same; and only 4% will spend less, despite the death of the excess profits tax. Why? Fierce competition will force it. So before you get too far into 1954, plan and distribute your advertising dollar to minimize duplicate and triplicate coverage of the same markets.

★ ★ ★

THREE AND ONE-HALF million dollars were spent by The Sperry & Barnes plant in New Haven during 1953, according to Dallas D. Miller, manager.

Livestock and other raw materials, wages and salaries, transportation and supplies, local taxes, and other expenses

PLUGMOLD 2000

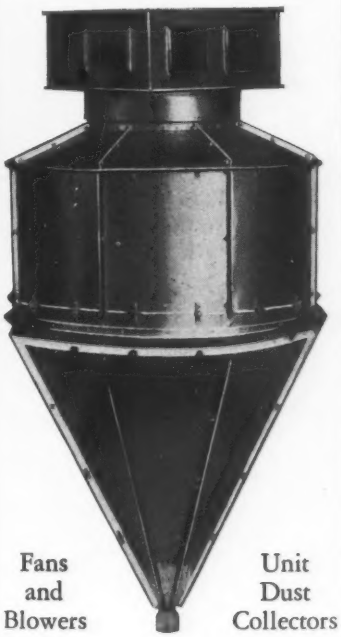
FASTER! EASIER! CHEAPER! TO INSTALL . . . Unlimited convenience outlets in a continuous run — for homes, offices, factories, schools, hospitals, hotels — any building, new or old!

Write today for new Plugmold 2000 booklet!

THE WIREMOLD COMPANY · HARTFORD 10, CONN.

COLONIAL

Industrial Ventilating and Dust Collecting Equipment



Fans and Blowers

Unit Dust Collectors

We specialize in the design, manufacture and installation of complete dust collecting, ventilating, fume removal and conveying systems for industry.

Our engineering staff is at your service.

Write or Phone

THE COLONIAL BLOWER CO.

54 Lewis St.
Plainville, Conn.
Phone Sherwood 7-2753

BLOWER CO. COLONIAL PLAINVILLE CONN.

"Federal"
Wiping Cloths

For Every Cleaning and Polishing Job in Industry

* * *

Washed and Sterilized in Our Own Laundry

* * *

Wiping Towel Rental Service

* * *

Cheese Cloths New and Washed

* * *

TEL. NEW HAVEN LOcust 2-9929

The Sanitary Institute of America MEMBER

MEMBER MANUFACTURERS ASSOCIATION OF CONNECTICUT, INC.

FEDERAL TEXTILE CORPORATION
EAST AND WATER STREETS
NEW HAVEN, CONNECTICUT

FOR SALES PROMOTION AND ADVERTISING

Art ILLUSTRATING • LAYOUT
LETTERING
RETOUCHING
CATALOG AND BOOKLET DESIGN

Photography
PHOTOS FOR ADVERTISING
COMMERCIAL PHOTOGRAPHY

Printing Plates
LINE • BENDAY • COLOR
HALFTONE • FOUR COLOR PROCESS

●

PHONE CH 9-8444
THE GRAPHIC ARTS CO.
172 HIGH STREET
HARTFORD, CONN.

SERVING CONNECTICUT INDUSTRIES SINCE 1904

of doing business in New Haven and the surrounding territory made up the expenditure, Mr. Miller said.

"This contribution to the economic life of New Haven runs into big figures because it is a big job," he said. "It also is an indication of our service to the livestock producer; our customers and New Haven consumers." Mr. Miller likened the operation of Sperry & Barnes in New Haven to the old rhyme, "butcher to baker to candlestick maker."

Sperry & Barnes and all other industrial and commercial firms in their respective areas pay dollars for raw materials, wages and salaries and other expenses to employees and suppliers. These dollars are traded in turn with local merchants for food, clothing, shelter, education, and entertainment.

A third step is for local merchants to replenish their stocks and provide for their own needs.

★ ★ ★

EDGAR G. SEYBOLD president of the Hendey Machine Co., Inc., Torrington, has announced the resignation of Helge G. Hoglund as vice president in charge of sales; the retirement of Frank J. McCarty as general sales manager; and the promotion of Charles A. Torson to general sales manager in charge of all sales activities of the company.

★ ★ ★

IN COOPERATION with the Meriden Manufacturers Association and the Horace C. Wilcox Technical School, the University of Connecticut is offering five twelve-week certificate courses in Meriden in ferrous metallurgy, statistical quality control, motion and time study, job evaluation, and tool and die design.

The courses, already in progress, are held at the Wilcox Tech School. A certificate will be granted to those who satisfactorily complete the course. The management of the participating student's company will be kept informed of the student's progress.

★ ★ ★

THE "FLOWER SAVER," a small refrigerator air purification unit which adds to the storage life of flowers and generally preserves their appearance and vitality, is now being marketed by Connor Engineering Corporation, Danbury. Development of the unit is the result of several years of research in collaboration with floriculturists of Cornell and Rutgers Universities.

LIFTS DIRT FROM FLOORS... HOLDS IT OFF...

CINDET

100% ACTIVE 100% SAFE!

NEW LIQUID SYNTHETIC DETERGENT

Whether your water supply is HARD or SOFT, cleaning with CINDET means *no curds, no dingy film!* CINDET is *surface-active*—it works on the principle of LIFTING floor dirt, grease and old water-emulsion wax from floors and HOLDING it in suspension in a fluffy mass of energetically-cleaning SUDS.

Dilute a little CINDET in HARD or SOFT water . . . apply with clean mop . . . let foamy, clean-looking suds stand 5 or 10 minutes . . . scrub only if necessary, and rinse thoroughly. The result: AMAZINGLY BRIGHT, CLEAN FLOORING.

Have your DOLGE SERVICE MAN demonstrate CINDET.

THE SUDS DO THE WORK!

FOR FREE SANITARY SURVEY OF YOUR PREMISES SEE YOUR DOLGE SERVICE MAN

Dependable DOLGE
WESTPORT, CONNECTICUT

WHY
Retire
FROM LIFE AT 60?

Why not instead BEGIN a new life of EXPLORING, LEARNING and DOING those interesting things you have always postponed!

Last year a group of men and women between 60 and 75 years gathered at this beautiful location in the Hudson Highlands to pioneer an experiment in dynamic retirement. Each spent what all agreed was one of the most memorable years of their lives.

The rewarding results proved to participants and professional observers alike that retirement can lead to new, constructive and positive LIVING experiences.

Why don't YOU start planning now to be one of the 20 men and women who will begin on October 1, 1954, the second adventure in dynamic retirement at the Cold Spring Project?

Men, women, or couples with college training or equivalent experience—plus faith in their own futures—are eligible. The costs are modest.

For details write the Cold Spring Project, Cold Spring-on-Hudson 1, N. Y.

Sponsored by the Walt Foundation, Inc. a non-profit organization

TYPICAL INSTALLATION of Connor Engineering's "Flower Saver" unit in a flower storage refrigerator.

The "Flower Saver" is described as essentially a counteractant for the harmful gases and vapors which accumulate in coolers and storage rooms. Sources of these airborne irritants are many. Tobacco smoke, auto exhaust, in fact any combustion, and decaying foliage are sources of ethylene, a gas which research has pointed to as the principal destroyer of cut flowers in storage.

The unit has two canisters filled with brominated carbon and an integral motor and blower. As the refrigerator air is drawn through the perforated canisters the carbon removes airborne gases and vapors and also adds a small amount of bromide to the atmosphere. A secondary though important purpose is to neutralize and sweeten the box atmosphere.

★ ★ ★

THE FOURTH Annual Personnel Conference sponsored by the Connecticut Personnel Association with the cooperation of the Yale University Department of Industrial Administration will be held on Tuesday, March 30, 1954 at Yale University and will develop the theme "Doing the Personnel Job—With Science and Sense."

The all-day conference in New Haven will get under way at 10:00 A. M. with welcoming remarks by Professor Hudson B. Hastings, Chairman of the Yale University Department of Industrial Administration. The subject "After 65—the $64 Question" will be covered by Mr. Robert L. B. Roessle,

TO BREAK YOUR "SALES BARRIER" NOW...

. . . your advertising and sales promotion dollar must have increased penetrative power.

. . . whether it's invested in publication, space, or in printed sales promotion, or in any other media, it must sell more . . . better.

Phone for a consultation concerning your sales planning and promotion . no obligation, of course.

THE TAYLOR & GREENOUGH COMPANY, INC.
20 BEAVER ROAD, WETHERSFIELD, CONN. TEL. JACKSON 9-3378

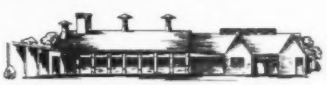
NOW

Magnolia Isotropic Die Cast
BRONZE BARS & BUSHINGS
• *fully machined* •

are available to you through us as an expansion of our service to Southern New England industry . . . by appointment as official distributors for

Magnolia Metal Co.
Elizabeth, N. J.

We will continue, as always, to furnish our famous-since-1916 BRONZE, BRASS & ALUMINUM CASTINGS . . . famous because: if nobody else can do it, Fritzell can! Present your next casting problem to us for solution and get the benefit of all our years of experience in "doing the impossible."



WRITE or PHONE Today
for further information.
Pattern facilities available.

FRITZELL
Foundry & Casting Co.
SINCE 1916
BRASS, BRONZE & ALUMINUM CASTINGS
571 Dixwell Ave., NEW HAVEN UNiv. 5-6996

★ ★ ★ ★ ★ ★

EMERSON RADIO STAYS TUNED TO BARNEY'S

Starting with a small order, Barney's has continued to supply Emerson Radio of Connecticut's expanding needs. Today, executive office (above) and general offices reflect the success of this progressive distributor. Photos of this and other outstanding installations are available for your inspection. Write or phone. No obligation, of course.

Barney's OF HARTFORD

OFFICE FURNITURE—SHOP EQUIPMENT

450 Front St. Phone JAckson 2-6221

Established 1930

Shortages occur in the property accounts

• A check of the property accounts against the property itself frequently reveals substantial unrecorded deductions.

Such unexplained shortages may be prevented through Continuous American Appraisal Service which keeps the property record in line with the property facts.

The AMERICAN APPRAISAL *Company*

Over Fifty Years of Service

OFFICES IN PRINCIPAL CITIES

Advisor on Employee Development of the Standard Oil Company of New Jersey. Mr. Harold Stieglitz, Director of Personnel Administration for the National Industrial Conference Board will present an analysis of "The Guaranteed Annual Wage." "Auditing the Effectiveness and Economics of the Personnel Function" will be the final phase of the morning session and will be discussed by Mr. Seth W. Candee, Manager of Industrial Relations of the Tide Water Associated Oil Company.

The important and timely topic "The Taft-Hartley Act—1954" will lead off the afternoon session and will be presented by Mr. William B. Barton, Manager and Legal Counsel for the U. S. Chamber of Commerce Labor Relations Department. The balance of the afternoon program will explore through panel discussion three phases of "Bringing Some Personnel Functions Up to Date." Mr. Everett W. "Red" Martin of New Haven College will explore the topic in the area of Accident Prevention. Mr. E. S. Willis, Manager of Employees Benefits Planning of the General Electric Company will develop the area of Suggestion Systems. The Employee Communications phase will also be covered. The Conference will conclude with an evening dinner meeting and speaker rounding out the theme "Doing the Personnel Job—With Science and Sense."

For full information and advance registration, write to Connecticut Personnel Association Secretary, G. W. Keeler, The American Brass Company, Waterbury 20, Connecticut.

Education and Industry Co-sponsor Career Days In Bristol

(Continued from page 11)

list of occupations, trades and professions. Each student indicates the field he wishes to pursue on graduation from either high school or college. Classrooms are assigned each occupation and men and women from these various fields are then enlisted to meet with the students.

Each occupational counsellor reviews the training requirements for the occupation, tells about the work, both the discouraging and rewarding factors, and presents the opportunities in the field. A question and answer period follows and the student gets a close-up view of his chosen work.

A total of 28 classes met in the first Career Day. These sessions, it is hoped, will either confirm the student's choice or make him realize that his opportunity lies in another direction, Clarence M. Ingraham, president of the Chamber, stated.

On the present two-career-day-a-year

THE WORLD'S FIRST nuclear powered vessel enters the water at Electric Boat Division of General Dynamics Corporation as the USS NAUTILUS (SSN 571) is launched at ceremonies held at the Groton shipyard January 21. More than 30,000 were on hand to witness the launching which has been described as the forerunner of a new era in marine propulsion. The "Nautilus," which is more than 300 feet long, was built in 19 months.

schedule, a Junior will have before graduation, opportunities to explore four different fields or to explore his original career choice under four different counsellors.

While members of the Junior and Senior classes met to discuss their future careers, the sophomores, meeting in assembly, learned of the history, growth, new developments and job opportunities from company officials and technicians of the Southern New England Telephone Company. Some of the company's newest equipment and telephone devices were displayed and their operation explained to the members of the sophomore class.

Participating in the preliminary stages of the program were: E. Bartlett Baines, president of the Bristol Board of Education. Clarence M. Ingraham, president, Bristol Chamber of Commerce; George F. Perry, principal, Bristol High School; and John Harrison, director of vocational guidance, Bristol High School.

Experienced representatives from a variety of activities explained the opportunities in their respective fields. The activities explained included: Accounting, airline hostess, art and fashion, interior decorator, automobile mechanic, bookkeeper, clerks—office and receptionist, construction and carpentry, drafting, civil and architectural engineering, industrial and chemical engineering, electrical engineering, mechanical engineering, forestry, hospital work, International Business Machines, journalism, shop work, medicine, music, physical and occupational therapy, radio-television, retailing, secretarial-medical, secretarial, teaching (elementary and high school and college).

MRS. DWIGHT D. EISENHOWER, wife of the President, sponsored the history-making vessel. Mrs. Eugene P. Wilkinson, wife of the skipper of the "Nautilus" attended the christening as Matron of Honor. Shown here also are John Jay Hopkins, chairman of the Board and president of General Dynamics Corporation; and Commander Edward L. Beach, USN, Naval Aide to the President.

No Room for Guesswork

(Continued from page 5)

Beating "Cheap Labor" Areas

New England manufacturers have too long engaged in a dangerous kind of commiseration: the kind that says low-cost labor in other areas has eroded the foundations of our traditionally Yankee industries—that we can't beat our competitors' advantage of "cheap" help.

All other things being equal, this might be true. But must all other things be equal? We NUTMEG STATE manufacturers find we can easily offset the labor factor by making a better product faster, and by selling it more effectively.

Research can point the way for this, for a cost tailored to suit your budget, whether it be five dollars or five ciphers. But the outlay is a relative thing: successful research eventually more than pays its way. It guides you away from the mire of bad guesses, and onto the high ground of sound and alert management.

Talking Beats Walking!

It is remarkable how speaking over a DuKane office and plant paging system gets things done at once. No rushing to and fro. Makes your administrative job much easier.

DUKANE SOUND SYSTEMS

for OFFICE and PLANT PAGING

Let us show you how a DuKane console or rack and panel model can accommodate from 15 to 180 rooms. Ask for a free demonstration of these UL approved units.

DUKANE FLEXIFONE INTERCOMS

One company (name on request) saved $6,000 annually in time-keeping and production control alone, with Flexifone Intercom. Why walk? Just point your finger and talk! For a cost-free demonstration, write.

TEL-RAD INC.

FLEXIFONE SALES OF CONNECTICUT
"DuKane Communications & Sound Systems"
274 FARMINGTON AVE.
HARTFORD JA 5-0877

DON'T GAMBLE WITH YOUR ADVERTISING DOLLARS

consider these 4 points before selecting an advertising agency;

1. **Experience:** Agencies may look alike on the surface, but lift the shell and you'll find a world of difference in experience pertinent to the marketing, merchandising and advertising of your particular product.
2. **Size:** Volume of billing; number of accounts; number of creative personnel; how long in business:—Ask these questions and your job of determining which agency is *right for the job* will be made easier.
3. **Service:** The most important factor in the success or failure of your company's advertising efforts is service. Insist upon knowing agency policy in regard to direct mail, catalogs, sales promotion as well as trade and consumer advertising.
4. **Operation:** An outline of agency procedure for handling your account should include such information as scope of service; basis of compensation; and who in agency would form the service group responsible for basic policy.

Of course, there are many more points to be considered before a completely fair and informed decision can be made as to the agency best qualified to serve you. However, the four points listed are essential touchstones.

We would be very happy to answer your questions on these and other points should we be given the opportunity to solicit your account.

TROLAND, INC. — ADVERTISING

1336 Fairfield Avenue • Bridgeport, Connecticut • Telephone 5-2187

INDUSTRIAL
Relations — Law

By FREDRICK H. WATERHOUSE
Counsel

A FEW cases recently decided by the United States Supreme Court seem to be sufficiently interesting to call to your attention without editorial comment. The circumstances and results speak for themselves.

The first case involved the question of whether the discharge of certain employees by their employer constituted an unfair labor practice under the Taft-Hartley Act. Was their discharge "for cause" within the meaning of the law? The company involved was a radio and television broadcasting station. The negotiations between the union and the company reached an impasse, and although the employees did not strike they began picketing the company's station and distributing placards and handbills charging the company with unfairness. After this had continued for a month or six weeks several of the employees, without warning distributed about 5,000 handbills throughout the business section of the town and even mailed some to local businessmen, in which they attacked the quality of the company's television broadcasts but made no reference to the union, to a labor controversy or collective bargaining. They merely attacked the type of programs being presented by the company. This had continued for about a week when the company discharged ten of the employees whom it charged with sponsoring or distributing the handbills. The question then for the court to decide was whether these employees were discharged "for cause." The Board decided that one of the discharged men had not sponsored or distributed the handbill and ordered his reinstatement with back pay but decided that the other nine had sponsored or distributed the handbill and upheld the company in its discharge of them.

The Supreme Court upheld the Board and the company in the discharge of these employees and said, "The legal principle that insubordination, disobedience or disloyalty is adequate cause for discharge is plain enough. The difficulty arises in determining whether, in fact, the discharges are made because of such a separable cause or because of some other concerted activities engaged in for the purpose of collective bargaining or other mutual aid or protection which may not be adequate cause for discharge." Probably the most important feature of the Supreme Court's decision involved the statement by the Board that "We . . . do not decide whether the disparagement of the product involved here would have justified the employer in discharging the employees responsible for it, had it been uttered in the context of a conventional appeal for support of the union in the labor dispute." With respect to this distinction by the Board the Supreme Court said, "Even if the attack were to be treated as the Board has not treated it, as a concerted activity wholly or partly within the scope of those mentioned in Section 7, the means used by the technicians in conducting the attack have deprived the attackers of the protecion of that section when read in the light and context of the purpose of the act."

The other cases we feel merit your attention were decided by the Supreme Court as a group and involved that provision of the Taft-Hartley Act which states "it shall be an unfair labor practice for an employer . . . by discrimination in regard to hire or tenure of employment or any term or condition of employment to encourage or discourage membership in any labor organization." In the first case the union caused the company to discriminate against one of its employees by reducing his seniority standing because he was delinquent in paying his union dues.

In the second case a union suspended an employee from membership for

(Continued on page 64)

THOMAS W. HALL COMPANY
INCORPORATED
Stamford, Connecticut

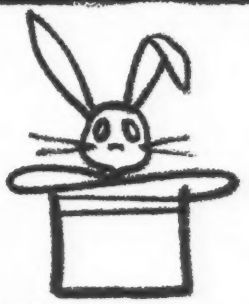
Printing, Newspaper & Lithographing Machinery
Paper Converting Equipment
Job Presses, Galleys & Cabinets
Proof Presses, Balers, Cutters

CONTRACT MANUFACTURING
PARTS or
COMPLETE PRODUCTS

- Stampings
- Drawings
- Plating
- Enameling
- Assemblies

Send for descriptive brochure

AMERICAN ASSOCIATES MFG. CORP.
formerly Brass Goods Mfg. Co.
1 BRIDGE STREET DEEP RIVER, CONN.

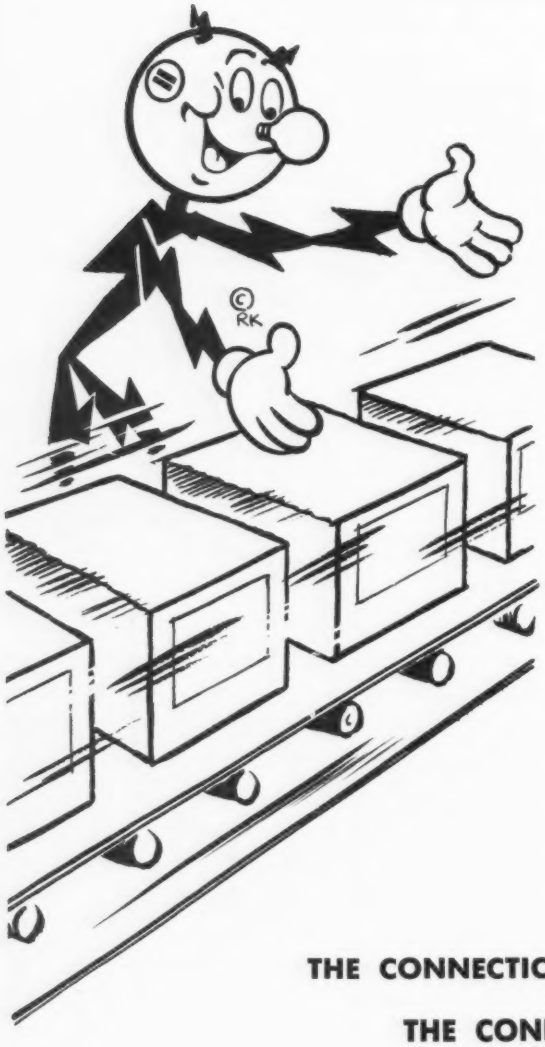


IT'S MAGIC . . . the fast, easy way Jack Wittstein solves your shipping container problems for safety and economy. Call

JACK WITTSTEIN
Box 1348, 56 Church Street
MAin 4-5121, New Haven 5, Conn.

MODERNIZATION

Offers New Opportunities For Connecticut Industries



You can replace man hours with kilowatt hours, even in old multi-story buildings. Short cuts to greater production are made possible by

- ★ Carefully planned materials handling programs
- ★ Planned industrial lighting systems
- ★ Improved plant layout
- ★ Modern production machines and methods

All supported by an abundance of low-cost electricity.

Many Connecticut manufacturers have embarked already on just such a program, with a resultant saving in space, money and time . . . Why not talk to the power engineer of your electric utility about a similar modernization of your plant? He is ready and able to help you in many ways.

THE CONNECTICUT LIGHT AND POWER COMPANY

THE CONNECTICUT POWER COMPANY

THE HARTFORD ELECTRIC LIGHT COMPANY

THE UNITED ILLUMINATING COMPANY

BUSINESS TIPS

from

School of Business Administration

University of Connecticut

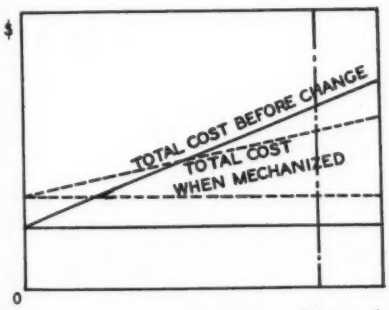
The Changing Cost Structure of Business

By LAWRENCE P. WEBSTER, *Assistant Professor of Accounting*
University of Connecticut

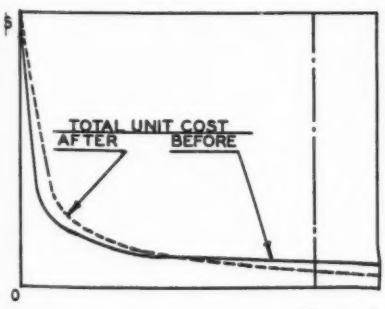
As a business firm develops its technology, it finds that its cost structure changes appreciably. One of the motivating factors working to increase improved technology and mechanization of industry is the increase in productivity which accompanies mechanization. Increased productivity should be reflected in a reduction in the unit cost of the product. This, however, is generally true only at the higher levels of production.

The mechanization of industry tends to decrease the variable component of total cost at the same time it causes an increase in the total fixed or period component of total cost. This is illustrated in Figure 1 where costs are shown before and after introducing a technological change. Mechanization tends to convert costs that were formerly variable to fixed or period costs. In other words, some of the costs that fluctuated with changes in productive activity fluctuate after mechanization with the passage of time. This may be best illustrated by a direct labor operation that becomes an automatic machine operation. Before mechanization the direct labor cost was proportional to the amount of work turned out. If work was not performed direct labor cost stopped. Many of the costs incident to the operation of a machine become proportional to the passage of time and no longer depend on productive activity. Many of these are the costs of ownership, such as depreciation, property taxes, and insurance which continue whether the plant operates or not. Other fixed costs are the standby costs which are necessary if the plant is to produce the first unit of output.

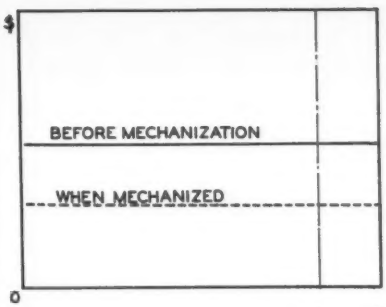
The effect of this mechanization is



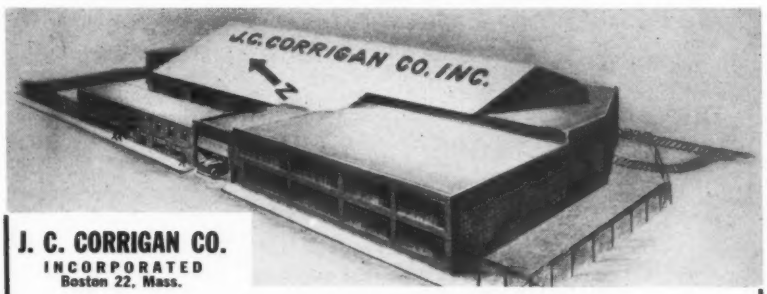
Normal
Units of Products Volume
EFFECT OF MECHANIZATION ON TOTAL COST.
Figure 1-A



Normal
Units of Product Volume
EFFECT OF MECHANIZATION ON UNIT PRODUCT COST.
Figure 1-B



Normal
Units of Output Volume
EFFECT OF MECHANIZATION ON UNIT VARIABLE COST.
Figure 2



J. C. CORRIGAN CO.
INCORPORATED
Boston 22, Mass.

CONVEYORS

Engineers • Manufacturers • Erectors

Material Handling and Processing Equipment

PORTABLE COVEYORS • STORAGE BINS • COAL SILOS

Branch Serving Connecticut Industry

131 WHALLEY AVE., New Haven Tel. Locust 2-3080

to reduce the total cost at the higher levels of activity and possibly to increase the total cost at the lower levels of activity. (See Figure 1.) The result is a lower unit cost at the higher level of activity and a higher unit cost at the lower levels of activity. What in effect happens is that the variable unit cost of the product is reduced over the whole range of production. (Figure 2.) At the higher production level (see Figure 1), the increase in the fixed component of costs assigned to each unit of product is more than offset by a reduction in the unit variable cost. At the lower levels of activity, there are fewer units of product to absorb this increase in fixed cost and hence, the unit cost increases. This occurs because the decrease in variable cost is not great enough to overcome the increase in unit cost due to a larger assignment of fixed cost to each unit of product.

It is contended by some writers that when a commitment is made for a plant and equipment that these "facilitating" assets create costs of being able to produce. The costs that arise from these "facilitating" assets, it is contended, should not be assigned as a cost of making a product. Whether or not these costs are assigned directly to a product is of little consequence since they must be recovered ultimately from the sales revenue. It may be true that some costs that do arise were not in existence before mechanization. These costs may be, for the most part, the cost of ownership of "facilitating" assets. One point should be explored here and that is an investment should be made in plant and equipment only if there is an expectation of operation at the normal rate of production. Anyone may acquire materials and trained labor but the organized manufacturer using tools and organization can produce goods more efficiently than its customers. The motivation to acquire tools increasing productivity—this also includes the acquisition of tools to perform jobs that could not otherwise be performed without the aid of such tools—is the expectation that at the normal expected volume of production, unit cost will decrease.

Profits may accrue to an organization only after a successful exchange of goods or services with someone outside the organization. Losses may accrue (1) when there is an unsuccessful exchange with an outsider, and (2) when there is a loss of value without any exchange with an outsider. The inability to use a plant at an expected level of operations may easily cause a loss from overall operations should sufficient volume fail to develop. This type of a loss may appear in the operating statements in two ways: (1) it may be set out as an idle capacity cost representing the costs that need not have been incurred had only enough productive capacity been acquired to handle the volume of business obtained, or (2) the loss may be included in costs assigned to products sold, hence, reducing the gross profit on sales.

The acquisition of improved facilities of production is not a guarantee that the resulting increase in productivity will cause unit or total costs to fall. The necessary volume of production must be forthcoming to maintain an expected level of operations one anticipates when making a commitment that will increase the fixed component of total cost to an enterprise.

Microfilm on the spot

Protect your vital records, valuable engineering drawings, etc. Conserve costly storage space.

Our completely equipped mobile filming unit enables us to microfilm IN THE FILMOBILE OR ON YOUR PREMISES — without tieing up your facilities or disrupting office routine. Or, we will do the actual filming in our air conditioned New Haven laboratory. We also have complete facilities for reproducing back from microfilm images.

We'll be glad to furnish a quotation on your requirements — at no obligation.

We are also authorized sales and factory trained service representatives for Eastman Kodak microfilming equipment and supplies.

American Microfilming service company

412 TEMPLE STREET • NEW HAVEN • CONN. • TEL. • SPRUCE 7-3657

He looks alert, keen, and intelligent

But he's still a fox . . .

Employers Need **FIDELITY BONDS**

THE TRAVELERS INDEMNITY COMPANY
HARTFORD, CONNECTICUT

Here's how to *average-down* your steel costs with Reliance

ECON-O-GRADE sheets

Reliance warehouse steel comes in two grades:

Reliance COMMERCIAL-OR-BETTER QUALITY Sheet and Strip

Reliance ECON-O-GRADE Sheets

Why two grades? For the simple reason that the "right" steel for a particular job is that which fulfills the functional requirements of the job at lowest cost at a particular time.

Whether you buy one grade or the other, the steel has to satisfy your job-requirements in finish, gauge, size and workability.

How do we accomplish this? By *job-fitting* or correctly "mating" the available steel and the job for which it is intended.

ECON-O-GRADE sheets are available in sheets, or sheared or slit to your working sizes. They are generally suitable for ordinary bending, forming, coining, swaging and drawing work.

Call us anytime you want to check the cost-saving benefits of Reliance *Job-Fitting* Service.

T.M. REG. U.S. AND CANADA

DEPENDABLE DAN will take care of it for you!

Here's the gist of the Reliance JOB-FITTING idea—

. . . It's knowing our "stuff" . . . our "feel for steel."

. . . It's knowing your job . . . what you expect the steel to do for you.

. . . It's supplying in-stock sheet and strip best suited to your immediate need.

FOR HELPFUL ACTION CALL OUR NEAREST PLANT OR OFFICE

RELIANCE STEEL DIVISION

Processors and Distributors JOB-FITTED Sheet and Strip Steel

GENERAL OFFICES — BOX 4308 — PORTER STATION, DETROIT 9, MICHIGAN

PLANTS

CLEVELAND PLANT, 3344 E. 80th St., VUlcan 3-3600, Cleveland 27, O.
DETROIT PLANT, 13770 Joy Road, WEbster 3-5866, Detroit 28, Mich.
EASTERN PLANT, 2061 State Street, STate 7-5781, Hamden (New Haven 7), Conn.
MIDWEST PLANT, 1601 South Wolcott Ave., CAnal 6-2442, Chicago 8, Ill.

OFFICES

COLUMBUS 12, OHIO, 1373 Grandview Ave., Kingswood 0264
DAYTON, OHIO, 120 W. Second Street, Michigan 0581
DES MOINES 9, IOWA, 610 Fleming Bldg., Des Moines 2-1490
DETROIT 28, MICHIGAN, 13770 Joy Road, WEbster 3-5966
GRAND RAPIDS 2, MICH., 320 Keeler Bldg., GLendale 6-9569
INDIANAPOLIS 4, IND., 1509 Fletcher Trust Bldg., FRanklin 2333
JACKSON 18, MICHIGAN, 801 Reynolds Bldg., Jackson 4-6189
MILWAUKEE 10, WIS., 4622 W. Center St., Hilltop 2-1040
NEW YORK 19, N. Y., 250 West 57th St., COlumbus 5-4870
ROCHESTER 4, N. Y., 5 St. Paul St., BAker 1861
ST. LOUIS 8, MO., 4376 Lindell Blvd., LUcas 4550
TOLEDO 4, OHIO, 2114 Ohio Bldg., GArfield 8384
WORCESTER 8, MASS., 507 Main St., Worcester 5-0686

RELIANCE *Job-Fitted* PRODUCTS

COLD ROLLED STEEL STRIP — COILS — CUT LENGTHS — ALL TEMPERS
SHEETS: COLD ROLLED — HOT ROLLED — H. R. PICKLED — LONG TERNE — GALVANIZED
Standard and Production Sizes or Cut to Actual Working Dimensions

DETROIT STEEL

PRODUCERS OF

Coke • Coal Chemicals • Pig Iron • Ingots
Slabs • Sheet Bars • Billets • Wire Rods
Hot Rolled and Cold Rolled Sheet and Strip
Low and Medium Carbon Manufacturers' Wire
High Carbon Specialty Wire • Welded Fabric

GENERAL OFFICES
DETROIT 9, MICHIGAN

SPOTLIGHT ON THE FUTURE*

By R. C. SWANTON
Director of Purchases,
Winchester Repeating Arms Company,
Division of Olin Industries, Inc.

General Business Conditions

ALL but one of the important industrial business factors reported on by the N.A.P.A. Business Survey Committee continued down in February. Production, prices, inventories and employment are off at about the same rates as reported in January. The bright spot is in new orders. While not of boom proportions, the number reporting increases (30%) exactly balances the number of decreases, a condition that has not existed in the reports since last March. Also, the number showing increases is the highest since January, 1953. Production cutbacks and increased orders have closed the gap between falling orders and production, to two points in February. The widest gap in 1953 was 15 points, in September—indicating that much of the adjustment between production and orders has been made.

Price changes, though more numerour, have been moderate, reflecting overstocks and stiff competition. Unworked material inventories show the sharpest drop since last June. Many are reported down to rock bottom. Employment is down—not quite as much as in January. Productivity is on the rise. Buying policy is predominantly 60 days and under. The majority opinion is that Easter, Spring and early Summer products are becoming active, and March may show a leveling-off to upward movement of industrial business.

Commodity Prices

Prices of purchased industrial materials continued to show weakness in February. Metals predominate in the slide-off of raw materials, with fabricated items running a close second. Cash discounts, missing since the imposition of price controls, are coming back. Freight absorption and delivered price changes help to lower the net cost to the consumer. With time to negotiate and currently excess capacities to negotiate with, buyers are experiencing healthy competitive conditions.

Inventories

Purchasing Agents report inventories of the materials they buy are lower again this month. 51% report reduction of stocks, the largest number so reporting in any one month since the inventory correction started last June. Many are in balance with current requirements. The adjustment appears to be about completed for many others. General comment is that this part of industrial inventory is in a much healthier condition than it has been for months.

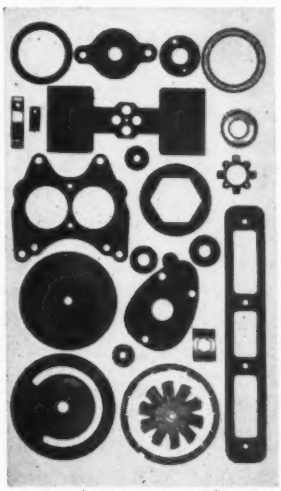
Employment

Payrolls are down again, though at a slightly lower pace than in January and there is a slight increase in those reporting new hirings. Outdoor work is expected to pick up in March. Productivity is improving as the incentive workers strive to make up for lost overtime pay. All types of labor are reported available in most areas.

Buying Policy

Sixty days and under is still the majority purchasing policy. Living off inventory, short orders, availability, and price weakness are influencing this short view of the markets. General assurance that vendors will meet delivery schedules, plus the improvement of supplier services, are making unnecessary the long-range or multiple commitments so prevalent during controls and scarcities. . . .

YOU SPECIFY...
AUBURN WILL SATISFY!



- Gaskets
- Packings
- Washers
- Spacers, Seals Shims, Bushings

Auburn is at your service—80 years of engineering "know-how" in designing, fabricating and developing for every purpose . . . and in virtually any material, including:
Leather • Asbestos • Cork • Rubber • Cardboard • Silicon Rubber • Neoprene • Brass • Aluminum • Felt • Phenolics • Compositions • Cloth • Fibre • Paper • Plastics • Steel • Copper • Teflon • Special Materials.

Send us your specifications or blueprints. You'll receive quotations, recommendations . . . with no obligation.

GASKETS ALCCO PACKINGS
AUBURN MFG. COMPANY
316 Stack St., Middletown, Conn.

Specialists in Gaskets and Packings for More than 80 Years
Representatives: Atlanta, Ga.; Detroit Mich.; St. Louis, Mo.; Los Angeles, Cal.; Minneapolis, Minn.; Washington, D. C.; Cincinnati, O.

Day after day, the threat of explosion hung menacingly over the plant of a leading manufacturer. The cause: *a volatile, highly-flammable chemical which appeared essential to an important step in production.*

Under the constant tension, employees' nerves were close to the cracking point when an Ætna Loss Prevention Engineer was assigned to investigate.

Although the problem was a new one to this particular insured, the Ætna engineer remembered some very similar cases which had caused trouble for clients in the past. From the experience and knowledge gained in these cases, he was able to suggest a substitute that *couldn't* explode.

A test run was put through immediately, with highly successful results. The finished product was actually improved — and, as an extra dividend, the new chemical proved materially cheaper to use.

In plant after plant, Ætna's expert loss prevention engineers have solved similar safety problems for Ætna clients. They have an outstanding record for preventing accidents and forestalling costly disability claims — sometimes through their technical ingenuity, sometimes through broad knowledge acquired in nationwide industrial trouble-shooting.

As a result, hundreds of Ætna-insured firms have been saved substantial sums in insurance premiums — have benefited from better industrial relations — have found lost time from accidents cut to a minimum.

For further information on Ætna Loss Prevention Service — and on all the other benefits of being Ætna-insured — call the Ætna representative in your community.

The most far-reaching name in Loss Prevention

ÆTNA CASUALTY AND SURETY COMPANY

The Ætna Life Affiliated Companies write practically every form of insurance and bonding protection

LIFE AND CASUALTY
Ætna Life Insurance Company
Ætna Casualty and Surety Company

FIRE AND MARINE
Automobile Insurance Company
Standard Fire Insurance Company

Hartford 15, Connecticut

ACCOUNTING HINTS

Contributed by the Hartford Chapter National Association of Cost Accountants to stimulate the use of better accounting techniques in industry.

Accounting Department Services for Sales Management

THERE are many opportunities in industry today for the introduction of accounting knowledge and skill into the planning and control of sales department activities.

Thoughtful and progressive accounting management will find that its potential service to sales management has three important and distinct aspects as follows:

1. Assistance it can render in connection with administration of the sales department.
2. Assistance it can render in serving as a link between sales management and manufacturing management.
3. Assistance it can render in the establishment and/or revision of sales and distribution plans, policies, and programs.

The following are a few of the specific project studies under each of these headings which alert accounting management might well undertake in cooperation with and in support of sales management:

Services Relating to Administration of the Sales Department

1. Studies of sales compensation practices, including bonus and incentive plans.
2. Studies of branch office expenses.
3. Studies of advertising and sales promotion expense.
4. Salesmen's expense in relation to sales volume.

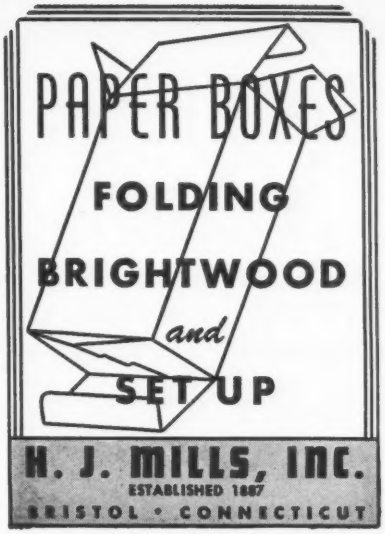
Services Which Provide a Link Between Sales and Manufacturing

1. Studies of proper composition of the product line.
2. Studies relating to establishment of realistic price schedules.
3. Studies relating to establishment of improved sales forecasts and budgets.
4. Development of economic studies and business forecasts as they relate to a specific company's production line and method of operation.

Services Relating to Establishment or Revision of Intelligent Sales Plans

1. Studies relating to sales objectives and sales quotas.
2. Studies relating to specific product sales promotion policies.
3. Studies relating to marketing and distribution policies such as the following:
   a. Should distribution be limited as to type or number of accounts in specific localities?
   b. Should accounts whose annual purchases are low be dropped or serviced by a distributor set-up?
   c. Should a firm minimum order limit be set to screen out unprofitable orders.
   d. Are there large volume accounts whose purchases are not profitable due to type of product bought or special and costly services required?

The above are only a few of the wide range of studies which, if developed with the cooperation and support of sales management, can give to that management important data contained in a company's accounting records which can result in improved and more profitable sales department operations.



WHAT CONNECTICUT **MAKES**
MAKES **CONNECTICUT**

Manufacturers of
DRY PRESS
(STANDARD ITEMS)
FIRE BRICK
SPECIAL SHAPES
(MUD PRESS)
IN ANY SHAPE
OR QUALITY DESIRED

THE HOWARD COMPANY
250 Boulevard, New Haven, Conn.
SPruce 7-4447

MORRISSEY & CHENEY
Insurance

GERARD MORRISSEY
BENJAMIN CHENEY
E. LEONARD CLARK

INSURANCE CONTROL
FOR
INDUSTRIAL AND COMMERCIAL
ACCOUNTS

163 ASYLUM ST., HARTFORD, CONN.

CONNECTICUT ADVERTISING SERVICES

A DESCRIPTION OF THE PRINCIPAL ADVERTISING SERVICES RENDERED BY LEADING ADVERTISING AGENCIES IN THE STATE.

Edward Graceman & Associates

Advertising • Sales Promotion • Public Relations

983 Main Street • Hartford, Conn.

• DEALER HELPS • CATALOGS • DISPLAYS •

TRADE PAPER

THE F. W. PRELLE COMPANY

Established 1934

Advertising

95 ELM STREET

HARTFORD, CONNECTICUT TELEPHONE JA 7-3233

DIRECT MAIL

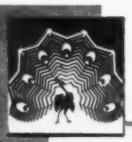
• PRODUCT LITERATURE • TRADE PUBLICITY •

Trade Paper and Consumer Advertising
Public Relations • Direct Mail • Catalogs.

JULIAN GROSS ADVERTISING AGENCY

A complete, competent personal agency service with branch offices in all key markets in the U.S.A.

11 ASYLUM ST. HARTFORD, CONN.



956 CHAPEL STREET
NEW HAVEN 10, CONN.
TELEPHONE STate 7-5719

ARGUS ASSOCIATES

Advertising

HUGH H. GRAHAM and ASSOCIATES, Inc.

IDEALIZATION IN MERCHANDISING AND ADVERTISING

Personalized Service backed by Practical Experience

TEN ARCADE
NEW BRITAIN
CONNECTICUT
Telephone 3-3676

THIS SPACE IS AVAILABLE
TO CONNECTICUT ADVERTISING AGENCIES

ASK FOR RATE

THE MANUFACTURERS ASSOCIATION
OF CONNECTICUT
928 FARMINGTON AVENUE, WEST HARTFORD

Advertising

THE BASIC SALES METHOD!

Ted Sommers Inc.

1115 MAIN ST.
BRIDGEPORT 3, CONNECTICUT
PHONE 6-3528

ADVERTISING

POINT OF SALE MERCHANDISERS

SELLING BY MAIL

R. H. Young and Associates

ADVERTISING

998 FARMINGTON AVE., HARTFORD 7, CONN.

IT'S MADE IN CONNECTICUT

EDITOR'S NOTE: This department, giving a partial list of peace-time products manufactured in Connecticut by company, seeks to facilitate contacts between prospective purchasers in domestic or foreign markets and producers. It includes only those listings purchased by Connecticut manufacturers. Interested buyers may secure further information by writing this department. Connecticut manufacturers desiring to list their products in this department should write the Editor for listing rates.

(Advertisement)

Accounting Forms
Baker-Goodyear Co The — New Haven

Accounting Machines
Underwood Corporation — Bridgeport

Adding Machines
Underwood Corporation — Bridgeport

Advertising Specialties
H C Cook Co The 32 Beaver St — Ansonia
Halco Co — New Haven
Waterbury Companies Inc — Waterbury

Aero Webbing Products
Russell Mfg Co — Middletown

Air Compressors
Spencer Turbine Co The — Hartford

Air Conditioning
Norwalk Airconditioning Corp The (forced air heating units oil fired) — South Norwalk

Air Impellers
The Torrington Manufacturing Co — Torrington

Aircraft
Sikorsky Aircraft Division United Aircraft Corporation (helicopters) — Bridgeport

Aircraft Accessories
Chandler Evans Division Niles-Bement-Pond Co (jet engine accessories, aircraft carburetors, fuel pumps, water pumps and Protek plugs) — West Hartford
Hamilton Standard Div United Aircraft Corp (propellers and other aircraft equipment) — Windsor Locks
Manning Maxwell & Moore Inc (aircraft pressure switches and jet engine afterburner control systems) — Stratford

Aircraft Instruments
Gorn Electric Company Inc — Stamford

Aircraft—Repair & Overhaul
Airport Department Pratt & Whitney Aircraft Division — Rentschler Field East Hartford
United Airports Div United Aircraft Corp — Rentschler Field East Hartford

Aircraft Test Equipment
United Manufacturing Company — Hamden

Air Ducts
Wiremold Co The (Retractable) — Hartford

Air Heaters—Direct Fired
Peabody Engineering Corporation — Stamford

Aluminum Castings
Consolidated Industries Inc — West Cheshire
Eastern Malleable Iron Company The — Naugatuck
Newton-New Haven Co 688 Third Avenue — West Haven
Charles Parker Company The — Meriden
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) — Stamford

Aluminum Forgings
Consolidated Industries Inc — West Cheshire
Scovill Manufacturing Company — Waterbury 91

Aluminum Ingots
Lapides Metals Corp — New Haven

Aluminum Lasts
United States Rubber Company Shoe Hardware Division — Waterbury

Aluminum Paint
Baer Brothers — Stamford

Aluminum Paste
Baer Brothers — Stamford

Aluminum—Sheets & Coils
United Smelting & Aluminum Co Inc — New Haven

Ammunition
Remington Arms Co Inc and Peters Cartridge Div — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Anodizing
Conn Metal Finishing Co — Hamden

Anodizing Equipment
Conn Metalcraft Inc — New Haven

Artificial Leather
Permatex Fabrics Corp The — Jewett City

Asbestos
Auburn Manufacturing Company The (gaskets, packings, wicks) — Middletown
Raybestos Div of Raybestos-Manhattan Inc The (brake linings, clutch facings, sheet packing and wick) — Bridgeport

Asbestos & Rubber Packing
Colt's Manufacturing Company — Hartford

Assemblies—Small
Greist Manufacturing Co The — New Haven
J H Sessions & Son — Bristol
Wallace Barnes Co The Div Associated Spring Corp — Bristol

Auto Cable Housing
Wiremold Company The — Hartford

Automatic Control Instruments
Bristol Co The (temperature, pressure, flow, humidity, time) — Waterbury

Automobile Accessories
Kilbourn-Sauer Company (lights and other accessories) — Fairfield
Raybestos Div of Raybestos-Manhattan Inc The (brake, lining, rivet, brass, clutch facings, packing) — Bridgeport

Automotive Bodies
Metropolitan Body Company — Bridgeport

Automotive Friction Fabrics
Russell Mfg Co The — Middletown

Automotive Parts
Eis Manufacturing Co (Hydraulic and Mechanical) — Middletown

Automotive & Service Station Equipment
Raybestos Div of Raybestos-Manhattan Inc The (brake service machinery) — Bridgeport
Scovill Manufacturing Company (Canned Oil Dispensers) — Waterbury 91

Automotive Tools
Eis Manufacturing Company — Middletown

Badges and Metals
Waterbury Companies Inc — Waterbury

Bags—Paper
American Paper Goods Company The — Kensington

Bakelite Moldings
Watertown Mfg Co The — Watertown

Balls
Abbott Ball Co The (steel bearing and burnishing) — Hartford
Hartford Steel Ball Co The (steel bearing and burnishing, brass, bronze, monel, stainless aluminum) — Hartford
Kilian Steel Ball Corp The — Hartford

Banbury Mixers
Farrel-Birmingham Company Inc — Ansonia

Barrels
Abbott Ball Co The (burnishing and tumbling) — Hartford
Hartford Steel Ball Co The (tumbling) — Hartford

Barrels—Tumbling
Conn Metalcraft Inc — New Haven

Bathroom Accessories
Autoyre Company The — Oakville
Charles Parker Co The — Meriden

Batteries
Bond Electric Corporation Division of Olin Industries Inc (flashlight, radio, hearing aid and others) — New Haven
Winchester Repeating Arms Co Division of Olin Industries Inc (flashlight, radio, hearing aid and others) — New Haven

Beads and Buttons
Waterbury Companies Inc (metal) — Waterbury

Bearings
Fafnir Bearing Co (ball) — New Britain
Marlin-Rockwell Corporation — Plainville
New Departure Div of General Motors (ball) — Bristol
Norma-Hoffmann Bearings Corp (ball and roller) — Stamford

Bellows
Bridgeport Thermostat Company Inc (metallic) — Bridgeport

Bellows Assemblies
Bridgeport Thermostat Company Inc — Bridgeport

Bellows Shaft Seal Assemblies
Bridgeport Thermostat Company Inc — Bridgeport

Bells
Bevin Brothers Mfg Co — East Hampton
Gong Bell Co The — East Hampton
N N Hill Brass Co The — East Hampton

Belt Fasteners
Saling Manufacturing Company (patented self-aligning) — Unionville

Belting
Hartford Belting Co — Hartford
Russell Mfg Co The — Middletown
Thames Belting Co The — Norwich

Bends—Pipe or Tube
National Pipe Bending Co The — 160 River St New Haven

Bicycle Coaster Brakes
New Departure Div General Motors Corp — Bristol

Bicycle Sundries
New Departure Div General Motors Corp — Bristol

Binders Board
Colonial Board Company — Manchester

Biological Products
Ernst Bischoff Company Inc — Ivoryton

Blacking Salts for Metals
Enthone Inc — New Haven
Mitchell-Bradford Chemical Co — Bridgeport

Blades
Capewell Manufacturing Company Metal Saw Division (hack saw and band saw) — Hartford

Blankets—Automatic
General Electric Company — Bridgeport

Bleaching, Dyeing, Printing & Finishing
United States Finishing Company The (textile fabrics) — Norwich

Blocks
Howard Company (cupola fire clay) — New Haven

Blower Fans
Colonial Blower Company — Plainville
Spencer Turbine Co The — Hartford

Blower Systems
Colonial Blower Company — Plainville
Ripley Co — Middletown

Blueprints and Photostats
Joseph Merritt & Co — Hartford

Boilers
Bigelow Co The — New Haven

Bolts and Nuts
Blake & Johnson Co The (nuts machine screw-bolts, stove) — Waterville
Clark Brothers Bolt Co — Milldale
O K Tool Co Inc The (T-Slot) — 33 Hull St Shelton

Bonderizing
Clairglow Mfg Company — Portland

(Advt.)

Bottle Openers
Scoville Mfg Co (steel, anodized aluminum) Waterbury

Box Board
Lydall & Foulds Paper Co The Manchester
National Folding Box Co Inc New Haven
Robertson Paper Box Co Montville
Gair Company Inc Robert Montville
New Haven Board and Carton Co The New Haven

Boxes
Clairglow Mfg Company (metal) Portland
Connecticut Container Corporation New Haven
Gair Company Inc Robert (corrugated and solid fibre shipping containers) Montville
Merriam Mfg Co (steel cash, bond, security, fitted tool and tackle boxes) Durham
Warner Bros Co The (Acetate, Paper, Acetate and Paper Combinations, Counter Display, Setup) Bridgeport

Boxes and Crates
City Lumber Co of Bridgeport Inc The Bridgeport
Wallingford Planing Mill Co Inc Yalesville

Boxes—Metal
Merriam Mfg Co (Bond and Security, Cash and Utility, Personal Files and Drawer Safes) Durham

Boxes—Paper—Folding
Atlantic Carton Corp Norwich
Bridgeport Paper Box Co Bridgeport
Carpenter-Hayes Paper Box Co Inc The East Hampton
Curtis & Sons Inc S Sandy Hook
Dowd Carton Co M S Groton
Folding Cartons Incorporated (paped, folding) Versailles
Gair Company Inc Robert Portland
H J Mills Inc Bristol
National Folding Box Co Inc (paper folding) New Haven
New Haven Board and Carton Co The New Haven
Robertson Paper Box Co Montville
Warner Bros Co The Bridgeport

Boxes—Paper—Setup
Box Shop Inc The New Haven
Bridgeport Paper Box Co Bridgeport
Heminway Corporation The Waterbury
H J Mills Inc Bristol
Strouse Adler Company The New Haven
Warner Bros Co The Bridgeport

Brake Cables
Eis Manufacturing Co Middletown

Brake Linings
Raybestos Div of Raybestos-Manhattan Inc The (automotive and industrial) Bridgeport
Russell Mfg Co The Middletown

Brake Service Parts
Eis Manufacturing Co Middletown

Brass & Bronze
American Brass Co The (sheet, wire, rods, tubes) Waterbury
Bridgeport Brass Company (sheet, rod, wire and tubing) Bridgeport
Bristol Brass Corp The (sheet, wire, rods) Bristol
Chase Brass & Copper Co Waterbury
Miller Company The (phosphor bronze and brass in sheets, strips, rolls) Meriden
Plume & Atwood Mfg Co The (sheet, wire, rod) Thomaston
Scovill Manufacturing Company Waterbury 91
Tinsheet Metals Co The (sheets and rolls) Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) New Haven

Brass & Bronze Ingot Metal
Plume & Atwood Mfg Co The Thomaston
Whipple and Choate Company The Bridgeport

Brass, Bronze, Aluminum Castings
Charles Parker Company The Meriden
Stamford Casting Company Inc Stamford
Victors Brass Foundry Inc Guilford

Brass Goods
American Associates Mfg Corp Deep River
American Brass Company The Waterbury
Plume & Atwood Mfg Co The (to order) Waterbury
Rostand Mfg Co The (Ecclesiastical Brass Wares) Milford
Scovill Manufacturing Company (to order) Waterbury 91
Western Brass Mills Division of Olin Industries Inc (to order) New Haven

Brass Mill Products
American Brass Company The Waterbury
Bridgeport Brass Co Bridgeport
Chase Brass & Copper Co Waterbury
Plume & Atwood Mfg Co The Thomaston
Scovill Manufacturing Company Waterbury 91
Western Brass Mills Division of Olin Industries Inc New Haven

Brick-Building
Donnelly Brick Co The New Britain

Bricks—Fire
Howard Company New Haven
Mullite Refractories Co The Shelton

Bright Wire Goods
Sargent & Company (Screw Eyes, Screw Hooks, Cup Hooks, Hooks and Eyes, C H Hooks) New Haven

Broaching
Hartford Special Machinery Co The Hartford

Bronze Powders
Baer Brothers Stamford

Brooms—Brushes
Fuller Brush Co The Hartford

Buckles
B Schwanda & Sons Staffordville
G E Prentice Mfg Co The Kensington
Hawie Mfg Co The Bridgeport
John M Russell Mfg Co Inc Naugatuck
North & Judd Manufacturing Co New Britain
Patent Button Co The Waterbury
United States Rubber Company Shoe Hardware Division Waterbury

Buffing Compounds
Roberts Rouge Co The Stratford

Buffing & Polishing Compositions
Apothecaries Hall Co Waterbury
Lea Mfg Co Waterbury

Buffing Wheels
Williamsville Buff Div The Bullard Clark Company Danielson

Burners
Plume & Atwood Mfg Co The (kerosene oil lighting) Waterbury

Burners—Automtaic
Peabody Engineering Corporation Stamford

Burners—Coal and Oil
Peabody Engineering Corporation (Combined) Stamford

Burners—Gas
Peabody Engineering Corporation (Blast Furnace) Stamford

Burners—Gas and Oil
Peabody Engineering Corporation (Combined) Stamford

Burners—Refinery
Peabody Engineering Corporation (For Gas and Oil) Stamford

Burnishing
Abbott Ball Co The (Burnishing Barrells and Burnishing Media) Hartford

Burs
Pratt & Whitney Div Niles-Bement-Pond Co West Hartford

Buttons
B Schwanda & Sons Staffordville
Frank Parizek Manufacturing Co The Putnam
Patent Button Co The Waterbuy
Scovill Manufacturing Company (Uniform and Tack Fasteners) Waterbury 91
Waterbury Companies Inc (Uniform and Fancy Dress) Waterbury

Cabinets
Charles Parker Co The (medicine) Meriden

Cabinet Work
Hartford Builders Finish Co Hartford

Cable—Asbestos Insulated
Rockbestos Products Corp New Haven

Cable—BX Armored
General Electric Company Bridgeport

Cable—Nonmetallic Sheathed
General Electric Company Bridgeport

Cable—Service Entrance
General Electric Company Bridgeport

Cages
Andrew B Hendryx Co The (bird and animal) New Haven

Cams
American Cam Company Inc Hartford
Hartford Special Machinery Co The Hartford
Rowbottom Machine Company Inc Waterbury

Canvas Products
F B Skiff Inc Hartford

Capacitors
Electro Motive Mfg Co Inc The (mica & trimmer) Willimantic

Caps & Closures—Metal
American Associates Mfg Corp Deep River

Card Clothing
Standard Card Clothing Co The (for textile mills) Stafford Springs

Carpenter's Tools
Sargent & Company (Planes, Squares, Plumb Bobs, Bench Screws, Clamps and Saw Vises) New Haven

Carpet Cushion
Sponge Rubber Products Co Inc Shelton

Carpets and Rugs
Bigelow-Sanford Carpet Co Thompsonville

Casters
Bassick Company The (Industrial and General) Bridgeport

Casters—Industrial
George P Clark Co Windsor Locks

Castings
Connecticut Foundry Co (grey iron) Rocky Hill
Connecticut Malleable Castings Co (malleable iron castings) New Haven
Consolidated Industries Inc West Cheshire
Charles Parker Company The (grey iron, brass, bronze, aluninum) Meriden
Eastern Malleable Iron Company The (malleable iron, metal and alloy) Naugatuck
Farrel-Birmingham Company Inc (Meehanite, Nodular Iron, Steel) Ansonia
Gillette-Vibber The (grey iron, brass, bronze, aluminum, also Bronze Bushing Stocks) New London
Plainville Casting Company (gray, alloy and high tensile irons) Plainville
John M Russell Mfg Co Inc (brass, bronze and aluminum) Naugatuck
Malleable Iron Fittings Co (malleable iron and steel) Branford
McLagon Foundry Co (grey iron) New Haven
Meyer Iron and Brass Foundry Inc (grey iron) Shelton
Newton-New Haven Co (zinc and aluminum) 688 Third Ave West Haven
Philbrick-Booth & Spencer Inc (grey iron) Hartford
Producto Machine Company The Bridgeport
Scovill Manufacturing Company (Brass & Bronze) Waterbury 91
Sessions Foundry Co The (grey iron) Bristol
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) Stamford
Turner & Seymour Mfg Co The (gray iron, semi steel and alloy) Torrington
Union Mfg Co (grey iron & semi steel) New Britain
Waterbury Foundry Company The (highway & sash weights) Waterbury
Wilcox Crittenden & Co Inc (gray iron and brass) Middletown

Castings—Investment
Arwood Precision Casting Corp Grotor

Castings—Permanent Mould
Charles Parker Company The Meriden

Cements—Refractory
Mullite Refractory Co The Shelton

Chain
John M Russell Mfg Co Inc Naugatuck
Turner and Seymour Mfg Co The (weldless, sash, jack, safety, furnace, universal, lion and cable) Torrington

Chain—Power Transmission and Conveying
Whitney Chain Company Hartford

Chain—Welded and Weldless
Bridgeport Chain & Mfg Co Bridgeport

Chain—Bead
Auto-Swage Products Inc Shelton
Bead Chain Mfg Co The Bridgeport

Chairs
The Hitchcock Chair Company Riverton (Advt.)

Chemical Manufacturing
Carwin Company The — North Haven

Chemicals
American Cyanamid Company — Waterbury
Apothecaries Hall Co — Waterbury
Carwin Company The — North Haven
Edcan Laboratories — South Norwalk
Macalaster Bicknell Company — New Haven
MacDermid Incorporated — Waterbury
Naugatuck Chemical Division United States Rubber Co — Naugatuck
New England Lime Company — Canaan
Pfizer & Co Inc Chas — Groton

Chemicals—Agriculture
Naugatuck Chemical Division United States Rubber Co (insecticides, fungicides, weed killers) — Naugatuck

Chemicals—Aromatic
Naugatuck Chemical Division United States Rubber Co — Naugatuck

Chemicals—Rubber
Robert J King Company Inc The — Norwalk

Christmas Light Clips
Foursome Manufacturing Co — Bristol

Chromium Plating
American Associates Mfg Corp — Deep River
Chromium Corp of America — Waterbury
Chromium Process Company The — Shelton
City Plating Works Inc — Bridgeport

Chucks
Cushman Chuck Co The — Hartford
Jacobs Manufacturing Co The — West Hartford
Union Manufacturing Company — New Britain

Chucks—Drill
Jacobs Manufacturing Co The — West Hartford

Chucks & Face Plate Jaws
Union Mfg Co — New Britain

Chucks—Power Operated
Cushman Chuck Co The — Hartford
Union Manufacturing Company — New Britain

Clay
Howard Company (Fire Howard "B" and High Temperature Dry) — New Haven

Cleaning Compounds
Enthone Inc (Industrial) — New Haven

Cleansing Compounds
MacDermid Incorporated — Waterbury

Clock Mechanisms
Lux Clock Mfg Co The — Waterbury

Clocks
E Ingraham Co The — Bristol
Seth Thomas Clocks — Thomaston
United States Time Corporation The — Waterbury

Clocks—Alarm
Lux Clock Mfg Co The — Waterbury

Clocks—Automatic Cooking
Lux Clock Mfg Co The — Waterbury

Clutches
Snow-Nabstedt Gear Corp The — New Haven

Clutch Facings
Russell Mfg Co The — Middletown

Clutch—Friction
Raybestos Div of Raybestos-Manhattan Inc The (clutch facings—molded, woven, fabric, metallic) — Bridgeport

Coils—Electric
Bittermann Electric Company — Canaan

Coils—Pipe or Tube
National Pipe Bending Co The 160 River St — New Haven
Whitlock Manufacturing Co The — Hartford

Coin Tokens
Waterbury Companies Inc — Waterbury

Commercial Heat Treating
A F Holden Company The 52 Richard St — West Haven

Commercial Truck Bodies
Metropolitan Body Company — Bridgeport

Comparators
Pratt & Whitney Div Niles-Bement-Pond Co (Electro-limit and Air-O-Limit) — West Hartford

Compressors
Norwalk Company Inc (high pressure air and gas) — South Norwalk

Concrete Products
Plastricrete Corp — Hamden

Cones
Sonoco Products Co (Climax-Lowell Div) (Paper) — Mystic

Consulting Engineers
Stanley P Rockwell Co Inc The (Consulting) 296 Homestead Ave — Hartford

Continuous Mill Gages
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Contract Machining
Malleable Iron Fittings Company — Branford

Contract Manufacturers
American Associates Mfg Corp (metal stampings & assemblies) — Deep River
Greist Mfg Co The (metal parts and assemblies) 503 Blake St — New Haven
Merriam Mfg Co (production runs—metal boxes and containers to specifications) — Durham
Plume & Atwood Mfg Co The (metal parts & assemblies) — Waterbury
Scovill Manufacturing Company (metal parts and assemblies) — Waterbury 91
J H Sessions & Son — Bristol

Controllers
Bristol Company The — Waterbury
Manning Maxwell & Moore Inc — Stratford

Conveyor Systems
Leeds Electric & Mfg Co The — East Haven
Production Equipment Co — Meriden

Copper
American Brass Corp The (sheet, wire, rods, tubes) — Waterbury
Bridgeport Brass Company (sheet, rod, wire and tubing) — Bridgeport
Bristol Brass Corp The (steel) — Bristol
Chase Brass & Copper Co (sheet, rod, wire tube) — Waterbury
Thinsheet Metals Co The (sheets and rolls) — Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) — New Haven

Copper Sheets
American Brass Company The — Waterbury
New Haven Copper Co The — Seymour

Copper Shingles
New Haven Copper Co The — Seymour

Copper Water Tube
American Brass Company The — Waterbury
Bridgeport Brass Co — Bridgeport

Cords—Asbestos
General Electric Company — Bridgeport

Cords—Braided
General Electric Company — Bridgeport

Cords—Heater
General Electric Company — Bridgeport

Cords—Portable
General Electric Company — Bridgeport

Cord Sets
Seeger-Williams Inc — Bridgeport

Cord Sets—Electric
General Electric Company — Bridgeport

Cork Cots
Sonoco Products Co (Climax-Lowell Div) — Mystic

Corrugated Box Manufacturers
Connecticut Container Corporation — New Haven

Corrugated Shipping Cases
Connecticut Container Corporation — New Haven
Connecticut Corrugated Box Div Robert Gair Co Inc — Portland
D L & D Container Corp 87 Shelton Ave — New Haven

Cosmetic Containers
Evelet Specialty Co The — Waterbury
Plume & Atwood Mfg Co The (metal) — Waterbury

Cosmetics
J B Williams Co The — Glastonbury

Cotton and Asbestos Wicking
Bland Burner Co The — Hartford

Cotton Yarn
Floyd Cranska Co The — Moosup

Counting Devices
Veeder-Root Inc — Hartford

Couplings—Self-Sealing
Sperry Products Inc — Danbury

Cranes and Conveyors
I-B Engineering Sales Co — New Haven

Crushers
Farrel-Birmingham Company Inc (Stone and Ore) — Ansonia

Cups—Paper
American Paper Goods Company The ("Puritan") — Kensington

Cushioning for Packaging
Gilman Brothers Co The — Gilman

Cut Stone
Dextone Co The — New Haven

Cutters
Barnes Tool Company The (pipe cutters, hand) — New Haven
Mitrametric Co The (ground pinion) — Torrington
O K Tool Co Inc The (inserted tooth milling) 33 Hull St — Shelton
Pratt & Whitney Div Niles-Bement-Pond Co (Milling Cutters all types) — West Hartford

Decorative Plating and Polishing
City Plating Works Inc — Bridgeport

Delayed Action Mechanism
M H Rhodes Inc — Hartford
R W Cramer Company Inc The — Centerbrook

Demineralizers
Crystal Research Laboratories — Hartford

Diamonds—Industrial
Diamond Tool and Die Works — Hartford

Dictating Machines
Dictaphone Corporation — Bridgeport
Gray Manufacturing Company The — Hartford
Soundscriber Corporation The — New Haven

Die Castings
Newton-New Haven Co Inc — New Haven

Die Casting Dies
ABA Tool & Die Co — Manchester
Parker Stamp Works Co The — Hartford
Weimann Bros Mfg Co The — Derby

Die Castings (Aluminum & Zinc)
Stewart Die Casting Div Stewart Warner Corp — Bridgeport

Die-Heads—Self Opening
Eastren Machine Screw Corp The Truman & Barclay Sts — New Haven

Die Polishing Machinery
Hartford Special Machinery Co The — Hartford

Die Sets
Pratt & Whitney Div Niles-Bement-Pond Co (Precision) — West Hartford
Producto Machine Company The — Bridgeport
Union Mfg Co (precision, steel and semi-steel) — New Britain

Dies
Hoggson & Pettis Mfg Co The 141 Brewery St — New Haven
Mitrametric Co The (ground for gears) — Torrington
Parker Stamp Works Inc The (plastics and die castings) — Hartford
Pratt & Whitney Div Niles-Bement-Pond Co (Monocone and Ducone Dies) — West Hartford

Die Sinkers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Dies and Die Sinking
Consolidated Industries — West Cheshire

Dish Drying Machines
Colt's Manufacturing Company — Hartford

Dish Washing Machines
Colt's Manufacturing Company — Hartford

Displays—Metal
Merriam Mfg Co (Contract Work to Individual Specifications) — Durham
(Advt.)

Door Closers
P & F Corbin Division The American Hardware Corp — New Britain
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Dowel Pins
Allen Manufacturing Co The — Hartford
Holo-Krome Screw Corp The — West Hartford

Drafting Accessories
Joseph Merritt & Co — Hartford

Drilling Machines
Pratt & Whitney Div Niles-Bement-Pond Co (Deep Hole) — West Hartford

Drilling and Tapping Machinery
Hartford Special Machinery Co The — Hartford

Drop Forgings
Atwater Mfg Co — Plantsville
Blakeslee Forging Company The — Plantsville
Bridgeport Hdwe Mfg Corp The — Bridgeport
Capewell Mfg Company — Hartford
Consolidated Industries — West Cheshire
Wilcox Crittenden & Co Inc — Middletown

Druggists' Rubber Sundries
Seamless Rubber Company The — New Haven

Duplicating Machines—Automatic
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Elastic Webbing
Russell Mfg Co The — Middletown

Electric Cables
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Clocks
Sessions Clock Co The (alarm, kitchen, occasional and office) — Forestville

Electric—Commutators & Segments
Cameron Elec Mfg Co The (rewinding motors) — Ansonia

Electric Cord Springs
Bristol Spring Manufacturing Co — Plainville

Electric Cords
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Eye Control
United Cinephone Corporation — Torrington

Electric Fixture Wire
General Electric Company — Bridgeport
Rockbestos Products Corp (asbestos insulated) — New Haven

Electric Hand Irons
Winsted Hardware Mfg Co (trade mark "Durabilt") — Winsted

Electric Insulation
Case Brothers Inc — Manchester
Stevens Paper Mills Inc The — Windsor

Electric Lighting Fixtures
Fan-Craft Mfg Co (residential, church, post lanterns) — Plainville
Plume & Atwood Mfg Co The — Waterbury
Wasley Products Inc — Plainville

Electric Motor Controls
Arrow-Hart & Hegeman Electric Co The — Hartford

Electrical Outlet and Switch Boxes, and Covers
General Electric Company — Bridgeport

Electric Panel Boards
Federal Electric Products Co Inc — Hartford

Electric Safety Switches
Federal Electric Products Co Inc — Hartford

Electric Shavers
Schick Incorporated — Stamford

Electric Signs
Berger Sign Co — Hartford
United Advertising Corp — New Haven

Electric Switches
Arrow-Hart & Hegeman Electric Co The — Hartford
General Electric Company — Bridgeport

Electric Time Controls
R W Cramer Company Inc The — Centerbrook

Electric Timers
Sessions Clock Co The — Forestville

Electric Timing Motors
Sessions Clock Co The (small) — Forestville

Electric Wire
General Electric Company — Bridgeport
Rockbestos Products Crop (asbestos insulated) — New Haven

Electric Wiring Devices
Arrow-Hart & Hegeman Electric Co The — Hartford
General Electric Company — Bridgeport

Electrical Circuit Breakers
Federal Electric Products Co Inc — Hartford

Electrical Conduit Fittings & Grounding Specialties
Gillette-Vibber Company The — New London

Electrical Control Apparatus
Federal Electric Products Co Inc — Hartford

Electrical Goods
A C Gilbert Co — New Haven

Electrical Motors
U S Electrical Motors Inc — Milford

Electrical Outlet and Switch Boxes, and Covers
General Electric Company — Bridgeport

Electrical Recorders
Bristol Co The — Waterbury

Electrical Relays and Controls
Allied Control Co — Plantsville

Electrical Wiring Systems
Wiremold Co The — Hartford

Electronics
Gray Manufacturing Company The — Hartford
Ripley Co — Middletown
Sturrup Larrabee & Warmers Inc — Middletown

Electroplating
American Associates Mfg Corp — Deep River
National Sherardizing & Machine Co — Hartford
Waterbury Plating Company — Waterbury

Electroplating—Equipment & Supplies
Enthone Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Electroplating Processes & Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Electrotypes
Barnum-Hayward Electrotype Co Inc — New Haven
New Haven Electrotype Div Electrographic Corp — New Haven

Elevators
Eastern Machinery Co The (passenger and freight) — New Haven
General Elevator Service Co — Hartford

Enameling
Conn Metal Finishing Co — Hamden
Waterbury Plating Company — Waterbury

Enameling and Finishing
Clairglow Mfg Co — Portland

Enamels
Baer Brothers — Stamford

End Milling Cutters
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Engines
Pratt & Whitney Aircraft Div United Aircraft Corp (aircraft) — East Hartford
Wolverine Motor Works Inc (diesel stationary marine) — Bridgeport

Envelopes
Curtis 1000 Inc — Hartford
United States Envelope Company Hartford Division — Hartford

Envelopes—Stock and Special
American Paper Goods Company The — Kensington

Extractors—Tap
Walton Company The — West Hartford

Eyelets
American Brass Company The — Waterbury
Platt Bros & Co The P O Box 1030 — Waterbury
Plume & Atwood Mfg Co The — Waterbury
Scovill Manufacturing Company — Waterbury 91

Eyelets, Ferrules and Wiring Terminals
American Brass Company The — Waterbury
Waterbury Companies Inc — Waterbury

Eyelet Machine Products
Ball & Socket Mfg Co The — West Cheshire
American Brass Company The — Waterbury

Fabricated Alloys
Rolock Inc (Heat Treating, Finishing) — Fairfield

Fancy Dress Buttons and Buckles
Waterbury Companies Inc — Waterbury

Fans—Electric
General Electric Company — Bridgeport

Fasteners—Slide & Snap
G E Prentice Mfg Co The — Kensington
Scovill Manufacturing Company (snap and slide fasteners) — Waterbury 91

Felt
Auburn Manufacturing Company The (mechanical, cut parts) — Middletown
Drycor Felt Company (paper makers and industrial) — Staffordville

Felt—All Purpose
American Felt Co (Mill & Cutting Plant) — Glenville
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Fenders—Boat
Sponge Rubber Products Co Inc — Shelton

Fibre Board
Case Brothers Inc — Manchester
C H Norton Co The — North Westchester
Stevens Paper Mills Inc The — Windsor

Finger Nail Clippers
H C Cook Co The — 32 Beaver St Ansonia

File Cards
Standard Card Clothing Co The — Stafford Springs

Films
Cine-Video Productions Inc — Milford

Firearms
Colt's Manufacturing Company — Hartford
Marlin Firearms Co The — New Haven
O F Mosberg & Sons Inc — New Haven
Remington Arms Company Inc — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Fire Hose
Fabrics Fire Hose (municipal and industrial) — Sandy Hook

Fireplace Goods
American Windshield & Specialty Co The 881 Boston Post Road — Milford
John P Smith Co The (screens) 423-33 Chapel St — New Haven

Fireproof Floor Joists
Dextone Co The — New Haven

Fireworks
M Backes' Sons Inc — Wallingford

Fishing Tackle
Bevin-Wilcox Line Co The (lines) — East Hampton
H C Cook Co The 32 Beaver St — Ansonia
Horton Mfg Co The (reels, rods, lines) — Bristol

Flashlights
Bond Electric Corporation Division of Olin Industries Inc — New Haven
Bridgeport Metal Goods Mfg Co — Bridgeport
Winchester Repeating Arms Company Division Olin Industries Inc — New Haven

Flat Springs
Bristol Spring Manufacturing Co — Plainville

Flexible Shaft Machines
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

(Advt.)

Floor & Ceiling Plates
Beaton & Cadwell Mfg Co The — New Britain

Fluorescent Lighting Equipment
Vanderman Manufacturing Co The — Willimantic
Wiremold Company The — Hartford

Food Mixing Machines
Colt's Manufacturing Company — Hartford

Forgings
Clark Brothers Bolt Co — Milldale
Consolidated Industries Inc — West Cheshire
Heppenstall Co (all kinds and shapes) — Bridgeport
Scovill Manufacturing Company (Non-ferrous) — Waterbury 91

Foundries
Connecticut Malleable Castings Co (malleable iron castings) — New Haven
Farrel-Birmingham Company Inc (Iron and Steel) — Ansonia
Charles Parker Company The (iron, brass, bronze, aluminum) — Meriden
Plainville Casting Company (gray, alloy and high tensile irons) — Plainville
Producto Machine Company The — Bridgeport
Sessions Foundry Co The (iron) — Bristol
Stamford Casting Company Inc (Aluminum, Magnesium and Bronze) — Stamford
Stonington Div of Emhart Manufacturing Co — Stonington
Union Mfg Co (gray iron & semi steel) — New Britain
Wilcox Crittenden & Co Inc (iron, brass, aluminum and bronze) — Middletown

Foundry Riddles
John P Smith Co The — 423-33 Chapel St New Haven
Rolock Inc (brass, galvanized steel) — Fairfield

Fuel Oil Pump and Heater Sets
Peabody Engineering Corporation — Stamford

Furnaces
Norwalk Airconditioning Corp The (warm air oil fired) — South Norwalk

Furnace Linings
Mullite Refractories Co The (refractories, super refractories) — Shelton

Fuses—Plug and Cartridge
General Electric Company — Bridgeport

Gage Blocks
Pratt & Whitney Div Niles-Bement-Pond Co (Alloy steel and Carbide, Hoke and USA) — West Hartford

Galvanizing
Malleable Iron Fittings Co — Branford
Wilcox Crittenden & Co Inc — Middletown

Galvanizing & Electrical Plating
Gillette-Vibber Co The — New London

Gaskets
Auburn Manufacturing Company The (from all materials) — Middletown
Raybestos Div of Raybestos-Manhattan Inc The — Bridgeport
Tsingris Die Cutting Corp (from all materials) — Waterbury

Gas Range Conversion Burner
Holyoke Heater Corp of Conn., Inc — Hartford

Gas Scrubbers, Coolers and Absorbers
Peabody Engineering Corporation — Stamford

Gauges
Bristol Co The (pressure and vacuum—recording automatic control) — Waterbury
Helicoid Gage Division American Chain & Cable Co The (pressure and vacuum) — Bridgeport
Manning Maxwell & Moore Inc — Stratford
Pratt & Whitney Div Niles-Bement-Pond Co (Precision Measurement, all types) — West Hartford

Gears
Mitrametric Co The (blanked fine pitch) — Torrington

Gears and Gear Cutting
Farrel-Birmingham Company Inc — Ansonia
Hartford Special Machinery Co The — Hartford

Glass Blowing
Macalaster Bicknell Company — New Haven

Glass Cutters
Fletcher-Terry Co The — Forestville

Glass Making Machinery
Hartford-Empire Company Div of Emhart Manufacturing Co — Hartford

Golf Equipment
Horton Mfg Co The (clubs, shafts, balls, bags) — Bristol

Greeting Cards
A D Steinbach & Sons Inc — New Haven

Grinding
Centerless Grinding Co Inc The (Precision custom grinding; centerless, cylindical, surfaces, internal and special) — 19 Staples St Bridgeport
Farrel-Birmingham Company Inc (Roll and Cylindrical) — Ansonia
Hartford Special Machinery Co The (gears, threads, cams and splines) — Hartford

Grinding Heads — Internal
Pratt & Whitney Div Niles-Bement-Pond Co (Pneumatic, High Speed) — West Hartford

Grinding Machines
Farrel-Birmingham Company Inc (Roll) — Ansonia
Pratt & Whitney Div Niles-Bement-Pond Co (Surface, Die, Gear and Cutter Grinders) — West Hartford
Rowbottom Machine Company Inc (cam) — Waterbury

Grommets
American Brass Company The — Waterbury
Plume & Atwood Mfg Co The — Waterbury

Guards for Machinery
Wheeler Co The G E — New Haven

Hack and Band Saw Blades
Capewell Manufacturing Co The — Hartford

Hand Tools
Bridgeport Hdwe Mfg Corp The (nail pullers, scout axes, box opening tools, trowels, coping saws, putty knives) — Bridgeport
James J Ryan Tool Works The (screwdrivers, machinists' punches, cold chisels, scratch awls and nail sets) — Southington

Hard Chrome
City Plating Works Inc — Bridgeport

Hardness Testers
Wilson Mechanical Instrument Div American Chain & Cable Company Inc — Bridgeport

Hardware
Bassick Company The (Automotive) — Bridgeport
Harloc Products Corp — New Haven
P & F Corbin Division The American Hardware Corp (builders) — New Britain
Sargent & Company — New Haven
Wilcox Crittenden & Co Inc (marine heavy and industrial) — Middletown
Yale & Towne Mfg Co The — Stamford

Hardware—Marine & Bus
Rostand Mfg Co The — Milford

Hardware—Trailer Cabinet
Excelsior Hardware Co The — Stamford

Hardware, Trunk & Luggage
J H Sessions & Son — Bristol
Yale & Towne Mfg Co The — Stamford

Hat Machinery
Doran Bros Inc — Danbury

Health Surgical & Orthopedic Supports
Berger Brothers Company The (custom made for back, breast, and abdomen) — New Haven

Heat Exchangers
Whitlock Manufacturing Co The — Hartford

Heat Elements
Safeway Heat Elements Inc (woven wire resistance type) — Middletown

Heat Treating
A F Holden Co The 52 Richard St — West Haven
Bennett Metal Treating Co The 1045 New Britain Ave — Elmwood
New Britain-Gridley Machine Division The New Britain Machine Co — New Britain
Stanley P Rockwell Co Inc The 296 Homestead Ave — Hartford

Heat-Treating Equipment
Bauer & Company — Hartford
A F Holden Company The 52 Richard Street — West Haven (Main Plant)
Autoyre Company The — Oakville
Rolock Inc (Baskets, Muffles, etc.) — Fairfield
Stanley P Rockwell Co Inc The (commercial) 296 Homestead Ave — Hartford
Wallace Barnes Co The Div Associated Spring Corp — Bristol

Heat Treating Salts and Compounds
A F Holden Company The 52 Richard Street — West Haven
Mitchell-Bradford Chemical Co — Bridgeport

Heating and Cooling Coils
G & O Manufacturing Co — New Haven

Heavy Chemicals
Naugatuck Chemical Division United States Rubber Co (sulphuric, nitric and muriatic acids and aniline oil) — Naugatuck

Hex-Socket Screws
Bristol Company The — Waterbury
Holo-Krome Screw Corp The — West Hartford

Highway Guard Rail Hardware
Malleable Iron Fittings Co — Branford

Hinges
Homer D Bronson Company — Beacon Falls

Hobs and Hobbings
ABA Tool & Die Co — Manchester
Pratt & Whitney Div Niles-Bement-Pond Co (Die and Thread Milling) — West Hartford

Hoists
J-B Engineering Sales Co — New Haven

Hoists and Trolleys
Union Mfg Company — New Britain

Home Laundry Equipment
General Electric Company — Bridgeport

Hose—Flexible Metallic
American Brass Co
American Metal Hose Branch — Waterbury

Hose Supporter Trimmings
Hawie Mfg Co The (So-Lo Grip Tabs) — Bridgeport

Hospital Signal Systems
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc — Meriden

Hydraulic Brake Fluids
Eis Manufacturing Co — Middletown

Hydraulic Controls
Sperry Products Inc — Danbury

Hypodermic Needles
Roehr Products Company — Waterbury

Inductors
C G S Laboratories Inc — Stamford

Industrial Finishes
Atlas Powder Co Zapon Div — Stamford
Chemical Coatings Corporation — Rocky Hill
United Chromium Incorporated — Waterbury

Industrial Tools—Powder Actuated
Remington Arms Company Inc — Bridgeport

Infra-Red Equipment
Leeds Electric and Mfg Co The — Hartford

Insecticides
American Cyanamid Company — Waterbury

Insecticide Bomb
Bridgeport Brass Company (Aer°a°sol) — Bridgeport

Insulated Wire & Cable
General Electric Company — Bridgeport
Kerite Company The — Seymour

Insulated Wire & Cable Machinery
Davis Electric Company — Wallingford

Instruments
Bristol Company The — Waterbury
J-B-T Instruments Inc (Electrical and Temperature) — New Haven
Manning Maxwell & Moore Inc — Stratford
Pratt & Whitney Div Niles-Bement-Pond Co (Precision Measuring) — West Hartford

Insulation
Gilman Brothers Co The — Gilman
(Advt.)

Inter-Communications Equipment
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc — Meriden

Interval Timers
Lux Clock Manufacturing Company — Waterbury
Rhodes Inc M H — Hartford

Ironing Machines—Electric
General Electric Company — Bridgeport

Jacquard
Case Brothers Inc — Manchester

Japanning
J H Sessions & Son — Bristol

Jig Borer
Moore Special Tool Co (Moore) — Bridgeport
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Jig Grinder
Moore Special Tool Co (Moore) — Bridgeport

Jointing
Raybestos Div of Raybestos-Manhattan Inc The (compressed sheets) — Bridgeport

Keller Machines
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Key Blanks
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Labels
J & J Cash Inc (Woven) — South Norwalk
Naugatuck Chemical Division United States Rubber Co (for rubber articles) — Naugatuck

Label Moisteners
Better Packages Inc — Shelton

Laboratory Equipment
Eastern Industries Inc — New Haven

Laboratory Supplies
Macalaster Bicknell Company — New Haven

Laces
Wilcox Lace Corporation The — Middletown

Laces and Nettings
Wilcox Lace Corporation The — Middletown

Lacquers & Synthetic Enamels
Atlas Powder Co Zapon Div — Stamford
Baer Brothers — Stamford
Chemical Coatings Corporation — Rocky Hill
United Chromium Incorporated — Waterbury

Ladders
A W Flint Co — 196 Chapel St New Haven

Lamps
Plume & Atwood Mfg Co The (metal oil) — Waterbury

Lampholders—Incandescent and Fluorescent
General Electric Company — Bridgeport

Lamp Shades
Verplex Company The — Essex

Lathes—Contin-U-Matic
Bullard Company The (vertical multi-spindle-continuous turning type) — Bridgeport

Lathes—30H Man-Au-Trol
Bullard Company The (horizontal 3 spindle) — Bridgeport

Lathes—Mult-Au-Matic
Bullard Company The (vertical multi-spindle-indexing type) — Bridgeport

Lathes—Toolroom and Automatic
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Lathes—Vertical Turret
Bullard Company The (single spindle) — Bridgeport

Laundry Roll Covers
Atlas Powder Co Zapon Div — Stamford

Lead Plating
Christie Plating Co The — Groton

Leather
Herman Roser & Sons Inc (Genuine Pigskin) — Glastonbury

Leather Dog Furnishings
Andrew B Hendryx Co The — New Haven
The Smith-Worthington Saddlery Co — Hartford

Leather Goods Trimmings
G E Prentice Mfg Co The — Kensington

Leather, Mechanical
Auburn Manufacturing Company The (packings, cubs, washers, etc) — Middletown

Letterheads
Lehman Brothers Inc (designers, engravers, lithographers) — New Haven

Lighting Accessories—Fluorescent
General Electric Company — Bridgeport

Lighting Equipment
Miller Co The (Miller, Duplexalite, Ivanhoe) — Meriden
United Manufacturing Co — New Haven

Lime
New England Lime Company — Canaan

Lipstick Containers
Bridgeport Metal Goods Mfg Co — Bridgeport

Lithographers
O'Toole & Sons Inc T — Stamford

Lithographing
Kellogg & Bulkeley A Division of Connecticut Printers Inc — Hartford
Lehman Brothers Inc — New Haven
A D Steinbach & Sons — New Haven

Locks—Banks
Yale & Towne Mfg Co The — Stamford

Locks—Builders
Eagle Lock Co The — Terryville
P & F Corbin Division The American Hardware Corp — New Britain
Sargent & Company — New Haven
Yale & Towne Mfg Co The — Stamford

Locks—Cabinet
Eagle Lock Co The — Terryville
Excelsior Hardware Co The — Stamford
Yale & Towne Mfg Co The — Stamford

Locks—Special Purpose
Eagle Lock Co The — Terryville
Yale & Towne Mfg Co The — Stamford

Locks—Suitcase
Eagle Lock Co The — Terryville

Locks—Suit-Case and Trimmings
Excelsior Hardware Co The — Stamford

Locks—Trunk
Eagle Lock Co The — Terryville
Excelsior Hardware Co The — Stamford
Yale & Towne Mfg Co The — Stamford

Locks—Zipper
Excelsior Hardware Co The — Stamford

Loom—Non-Metallic
Wiremold Company The — Hartford

Lumber & Millwork Products
City Lumber Co of Bridgeport Inc — Bridgeport

Machetes
Collins Company The — Collinsville

Machine Design
Black Rock Mfg Company The — Bridgeport

Machine Tools
Bullard Company The — Bridgeport
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford
Producto Machine Company The — Bridgeport

Machine Work
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia
Fenn Manufacturing Company The (precision parts) — Hartford
Hartford Special Machinery Co The (contract work only) — Hartford
National Sherardizing & Machine Co (job) — Hartford
Parker Stamp Works Inc The (Special) — Hartford
Swan Tool & Machine Co The — Hartford
Torrington Manufacturing Co The (special rolling mill machinery) — Torrington

Machinery
Fenn Manufacturing Company The (special) — Hartford
Globe Tapping Machine Company (dial type drilling and tapping) — Bridgeport
Hallden Machine Company The (mill) — Thomaston
Torrington Manufacturing Co The (mill) — Torrington

Machinery—Bolt and Nut
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Cold Heading
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery Dealers & Rebuilders
Botwinik Brothers — New Haven
J L Lucas and Son — Fairfield
State Machinery Co Inc — New Haven

Machinery—Extruding
Standard Machinery Co The — Mystic

Machinery—Metal-Working
Waterbury Farrel Foundry & Machine Co The — Waterbury
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Machinery—Nut
Waterbury Farrel Foundry & Machine Co The (forming and tapping) — Waterbury

Machinery—Screw and Rivet
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Drawing
Waterbury Farrel Foundry & Machine Co The — Waterbury

Machinery—Wire Straightening
Mettler Machine Tool Inc — New Haven

Machines
Campbell Machine Div American Chain & Cable Co Inc (cutting & nibbling) — Bridgeport
Coulter & McKenzie Machine Co The (special, new development engineering design and construction) — Bridgeport
Patent Button Company The — Waterbury

Machines—Automatic
A H Nilson Mach Co The (Special) — Bridgeport

Machines—Automatic Chucking
Bullard Company The — Bridgeport
New Britain-Gridley Machine Division The New Britain Machine Co (multiple spindle and double end) — New Britain
Pratt & Whitney Div Niles-Bement-Pond Co (Potter & Johnson) — West Hartford

Machines—Automatic Screw
New Britain-Gridley Machine Division The New Britain Machine Co (single and multiple spindle) — New Britain

Machines—Automatic Shaft Turning
Bullard Company The (30H lathe—horizontal 3 spindle) — Bridgeport

Machines—Brushing
Fuller Brush Co The — Hartford

Machines—Conveyor
Bullard Company The (Bullard-Dunn rotary conveyor indexing type) — Bridgeport

Machines—Contin-U-Matic
Bullard Company The (vertical multi-spindle—continuous turning) — Bridgeport

Machines—Draw Benches
Fenn Manufacturing Company The — Hartford

Machines—Drill Spacing
Bullard Company The (Man-Au-Trol spacer—used in conjunction with radical drills) — Bridgeport

Machines—Drop Hammers
Fenn Manufacturing Company The — Hartford

Machines—Forming
A H Nilson Mach Co The (four-slide wire and ribbon stock) — Bridgeport

Machines—Mult-Au-Matic
Bullard Company The — Bridgeport

Machines—Paper Ruling
John McAdams & Sons Inc — Norwalk

Machines—Pipe & Bolt Threading
Capewell Mfg Co The — Hartford

(Advt.)

Machines—Precision Boring
New Britain-Gridley Machine Division The New Britain Machine Co New Britain

Machines—Rolling
Fenn Manufacturing Company The Hartford

Machines—Slotting
Globe Tapping Machine Company The (High Production Screw Head Slotting) Bridgeport
Waterbury Farrel Foundry & Machine Co The (screw head) Waterbury

Machines—Special
Fuller Brush Co The Hartford

Machines—Swaging
Fenn Manufacturing Company The Hartford

Machines—Thread Rolling
Hartford Special Machinery Co The Hartford
Waterbury Farrel Foundry & Machine Co The Waterbury

Machines—Turks Head
Fenn Manufacturing Company The Hartford

Machines—Well Drilling
Consolidated Industries West Cheshire

Machines—Wire Drawing
Fenn Manufacturing Company The Hartford

Magnesium
Stamford Casting Company Inc (Magnesium, Aluminum and Bronze Castings) Stamford

Mailing Machines
Pitney-Bowes Inc Stamford

Manicure Instruments
W E Bassett Company The Derby

Manganese Bronze Ingot
Whipple and Choate Company Bridgeport

Marine Engines
Kilborn-Sauer Company (running lights and searchlights) Fairfield
Lathrop Engine Co The Mystic

Marine Equipment
Wilcox Crittenden & Co Inc Middletown

Marine Reserve Gears
Snow-Nabstedt Gear Corp The New Haven

Marking Devices
Hoggson & Pettis Mfg Co The New Haven
Parker Stamp Works Inc The (steel) Hartford

Mattresses
Waterbury Mattress Co Waterbury

Mechanics Hand Tool
Bridgeport Hdwe Mfg Corp The (screw drivers, wrenches, pliers, cold chisels, hammers, auto repair tools) Bridgeport

Metal Boxes and Displays
Durham Manufacturing Company The Durham
Merriam Mfg Co (Bond, Security, Cash, Utility, Personal Files, Drawer Safes, Custombilt containers and displays) Durham

Metal Cleaners
Apothecaries Hall Co Waterbury
Enthone Inc New Haven
MacDermid Incorporated Waterbury

Metal Cleaning Machines
Colt's Manufacturing Company Hartford

Metal Finishes
Enthone Inc New Haven
Mitchell-Bradford Chemical Co Bridgeport
United Chromium Incorporated Waterbury

Metal Finishing
American Associates Mfg Corp Deep River
National Sherardizing & Machine Co Hartford
Waterbury Plating Company Waterbury

Metal Formings
Master Engineering Company West Cheshire

Metalizing
Conn Metal Finishing Co Hamden

Metal Novelties
H C Cook Co The 32 Beaver St Ansonia

Metal Products—Stampings
American Brass Company The Waterbury
J H Sessions & Son Bristol
Scovill Manufacturing Company (Made-to-Order) Waterbury 91

Metal Specialties
Excelsior Hardware Co The Stamford

Metal Stampings
American Associates Mfg Corp Deep River
American Brass Company The Waterbury
Autoyre Co The (Small) Oakville
Bridgeport Chain & Mfg Co Bridgeport
DooVal Tool & Mfg Inc The Naugatuck
Excelsior Hardware Co The Stamford
Greist Mfg Co The 503 Blake St New Haven
H C Cook Co The 32 Beaver St Ansonia
Master Engineering Company West Cheshire
J A Otterbein Company The (metal fabrications) Middletown
J H Sessions & Son Bristol
Patent Button Co The Waterbury
G E Prentice Mfg Co The Kensington
Plume & Atwood Mfg Co The Waterbury
Saling Manufacturing Company Unionville
Stanley Works The New Britain
Swan Tool & Machine Co The Hartford
United States Rubber Company Shoe Hardware Division Waterbury
Verplex Company The (Contract) Essex
Waterbury Lock & Specialty Co The Milford

Meters—Gas
Sprague Meter Company Bridgeport

Meters—Parking
Rhodes Inc M H Hartford

Microfilming
American Microfilming Service Company New Haven

Microscope—Measuring
Lundeberg Engineering Company Hartford

Milk Bottle Carriers
John P Smith Co The 423-33 Chapel St New Haven

Millboard
Raybestos Div of Raybestos-Manhattan Inc The (asbestos) Bridgeport

Millwork
Hartford Builders Finish Co Hartford

Milling Machines
Pratt & Whitney Div Niles-Bement-Pond Co (Keller Tracer—Controlled Milling Machines) West Hartford
Rowbottom Machine Company Inc (cam) Waterbury

Mill Supplies
Wilcox Crittenden & Co Inc Middletown

Miniature Precision Connectors
Gorn Electric Co Stamford

Minute Minders
Lux Clock Mfg Co The Waterbury

Mirror Rosettes and Hangers
Waterbury Companies Inc Waterbury

Mixing Equipment
Eastern Industries Inc New Haven

Mops
Fuller Brush Co The Hartford

Moulded Plastic Products
Colt's Manufacturing Company Hartford
Patent Button Co The Waterbury
Waterbury Companies Inc Waterbury
Watertown Mfg Co The 117 Echo Lake Road Watertown

Mouldings
Himmel Brothers Co The (architectural, metal and store front) Hamden

Moulds
ABA Tool & Die Co Manchester
Hoggson & Pettis Mfg Co The (steel) 114 Brewery St New Haven
Lundeberg Engineering Company (plastics) Hartford
Parker Stamp Works Inc The (compression injection & transfer for plastics) Hartford
Sessions Foundry Co The (heat resisting for non-ferrous metals) Bristol

Napper Clothing
Standard Card Clothing Co The (for textile mills) Stafford Springs

Nettings
Wilcox Lace Corp The Middletown

Nickel Anodes
Apothecaries Hall Co Waterbury
Seymour Mfg Co The Seymour

Nickel Silver
American Brass Company The Waterbury
Plume & Atwood Mfg Co The Thomaston
Seymour Mfg Co The Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) New Haven

Nickel Silver Ingot
Whipple and Choate Company The Bridgeport

Night Latches
P & F Corbin Division The American Hardware Corp New Britain
Sargent & Company New Haven
Yale & Towne Mfg Co Inc Stamford

Non-ferrous Metal Castings
Miller Company The Meriden

Nuts, Bolts and Washers
Clark Brothers Bolt Co Milldale

Office Equipment
Pitney-Bowes Inc Stamford
Underwood Corporation Bridgeport & Hartford

Offset Printing
Kellogg & Bulkeley A Division of Connecticut Printers Inc Hartford

Oil Burners
Malleable Iron Fittings Co (domestic) Branford
Miller Company The (domestic) Meriden
Peabody Engineering Corp (Mechanical and/or Steam Atomizer) Stamford
Silent Glow Oil Burner Corp The 1477 Park St Hartford

Oil Burner Wicks
Raybestos Div of Raybestos-Manhattan Inc The Bridgeport

Oil Tanks
Norwalk Tank Co The (550 to 30M gals, underwriters above and under ground) South Norwalk
Whitlock Manufacturing Co The Hartford

Optical Cores & Ingots
Plume & Atwood Mfg Co The Thomaston

Otis Woven Awning Stripes
The Falls Company Norwich

Outlets—Electric
General Electric Company Bridgeport

Ovens—Electric
Bauer & Company Hartford

Package Sealers
Better Packages Inc Shelton

Packaging
Local Industries Inc (merchandising displays and packaging in wood) Lakeville

Packaging Machinery
Colt's Manufacturing Company (box making machinery. Trade mark "Rite Size") Hartford
Standard-Knapp Division of Emhart Manufacturing Co Portland

Packing
Auburn Manufacturing Company The (leather, rubber, asbestos, fibre) Middletown
Raybestos Div of Raybestos-Manhattan Inc The (rubber sheet and automotive) Bridgeport

Pads—Office
The Baker Goodyear Company New Haven

Padlocks
Sargent & Company New Haven
Waterbury Lock & Specialty Co The Milford
Yale & Towne Mfg Co Inc Stamford

Paints
Baer Brothers Stamford

Paints and Enamels
Staminate Corp The New Haven

Panta
Moore Special Tool Co (crush wheel dresser) Bridgeport

Paperboard
Gair Company Inc Robert Montville
Robertson Paper Box Co Montville
New Haven Board and Carton Co The New Haven

Paper Boxes
Atlantic Carton Corp (folding) Norwich
Gair Co Inc Robert (folding) Montville
National Folding Box Co Inc (folding) New Haven
New Haven Board and Carton Co The New Haven
Mills Inc H J Bristol
Robertson Paper Box Co (folding) Montville

Paper Boxes—Folding and Setup
Bridgeport Paper Box Company Bridgeport
M Backes' Sons Inc Wallingford

Paper Clips
H C Cook Co The (steel) 32 Beaver St Ansonia (Advt.)

Paper Mill Machinery
Farrel-Birmingham Company Inc — Ansonia

Paper Tubes and Cores
Sonoco Products Co (Climax-Lowell) Div — Mystic

Parallel Tubes
Sonoco Products Co (Climax-Lowell Div) — Mystic

Parkerizing
Clairglow Mfg Company — Portland

Parking Meters
Rhodes Inc M H — Hartford

Passenger Car Sander
Conn Telephone & Electric Corp Subsidiary of Great American Industries Inc — Meriden

Pattern-Makers
Farrel-Birmingham Company Inc — Ansonia

Penlights
Bridgeport Metal Goods Mfg Co — Bridgeport

Pet Furnishings
Andrew B Hendrix Co The — New Haven

Pharmaceutical Specialties
Ernst Bischoff Company Inc — Ivoryton

Phosphor Bronze
American Brass Company The — Waterbury
Miller Company The (sheets, strips, rolls) — Meriden
Seymour Mfg Co The — Seymour
Waterbury Rolling Mills Inc (sheets, strips, rolls) — Waterbury
Western Brass Mills Division of Olin Industries Inc (sheet, strip) — New Haven

Phosphor Bronze Ingots
Whipple and Choate Company The — Bridgeport

Photographic Equipment
Kalart Company Inc — Plainville

Piano Repairs
Pratt Read & Co Inc (keys and action) — Ivoryton

Piano Supplies
Pratt Read & Co (keys and actions, backs, plates) — Ivoryton

Pile Fabrics
Sidney Blumenthal & Co Inc (For furniture, automobiles, railroads, women's wear, toys) — Shelton

Pins
CEM Company ("Spirol") — Danielson

Pin Up Lamps
Verplex Company The — Essex

Pipe
American Brass Co The (brass and copper) — Waterbury
Bridgeport Brass Co (brass and copper) — Bridgeport
Chas Brass & Copper Co (red brass and copper) — Waterbury
Crane Company (fabricated) — Bridgeport
Howard Co (cement well and chimney) — New Haven

Pipe Fitters' Hand Tools & Machines
Capewell Mfg Co The — Hartford

Pipe Fittings
Corley Co Inc — Plainville
Malleable Iron Fittings Co — Branford

Pipe Plugs
Holo-Krome Screw Corporation The (countersunk) — West Hartford

Pipe Plugs—Socketed
Holo-Krome Screw Corp The — West Hartford

Plastics
Naugatuck Chemical Division United States Rubber Co — Naugatuck
Sponge Rubber Products Co Inc (expanded cellular) — Shelton

Plastic Bottles
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Buttons
Frank Parizek Manufacturing Co The — West Willington
Patent Button Co The — Waterbury

Plastic Gems
Colt's Manufacturing Company — Hartford

Plastic Films and Sheet
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Rod and Tubing
Plax Corporation, subsidiary of Emhart Manufacturing Co — West Hartford

Plastic Materials
American Cyanamid Co (Molding Compounds, Adhesives, Laminating Resins) — Wallingford

Plastics Machinery
Black Rock Mfg Company The — Bridgeport
Farrel-Birmingham Company Inc — Ansonia

Plastic—Moulders
Colt's Manufacturing Company — Hartford
Conn Plastics — Waterbury
General Electric Company — Meriden
Geo S Scott Mfg Co The — Wallingford
Waterbury Companies Inc — Waterbury
Watertown Mfg Co The — Watertown

Plastics—Moulds & Dies
Parker Stamp Works Inc The (for plastics) — Hartford

Plasticrete Bloc
Plasticrete Corp — Hamden

Plates—Switch
General Electric Company — Bridgeport

Platers
American Metal Products Company Inc — Bridgeport
Christie Plating Co — Groton
City Plating Works — Bridgeport
Patent Button Co The — Waterbury
Waterbury Plating Company — Waterbury
Chromium Process Company The (Chromium Plating only) — Derby

Platers' Equipment
Apothecaries Hall Company — Waterbury
Conn Metalcraft Inc — New Haven
Lea Manufacturing Co The — Waterbury
MacDermid Incorporated — Waterbury

Platers Metal
Plume & Atwood Mfg Co The — Thomaston

Plating
American Associates Mfg Corp — Deep River
Christie Plating Co The (including lead plating) — Groton
Conn Metal Finishing Co — Hamden

Plating Processes and Supplies
Enthone Inc — New Haven
United Chromium Incorporated — Waterbury

Plumbers' Brass Goods
Bridgeport Brass Co — Bridgeport
Keeney Mfg Co The (special bends) — Newington
Scovill Manufacturing Company — Waterbury 48

Plumbing Specialties
John M Russell Mfg Co Inc — Naugatuck

Pole Line Hardware
Malleable Iron Fittings Co — Branford

Police Equipment
The Smith-Worthington Saddlery Co — Hartford

Polishing Wheels
Williamsville Buff Div The Bullard Clark Company — Danielson

Poly Chokes
Poly Choke Company The (a shotgun choking device) — Tariffville

Postage Meters
Pitney Bowes Inc — Stamford

Potentiometers—Electronic
Bristol Company The — Waterbury

Power Presses
Fenn Manufacturing Company The — Hartford

Powered Metal Products
American Sintered Alloys Inc — Bethel
Waterbury Companies Inc — Waterbury

Prefabricated Buildings
City Lumber of Bridgeport Inc The — Bridgeport

Premium Specialties
Waterbury Companies Inc — Waterbury

Preservatives—Wood, Rope, Fabric
Darworth Incorporated (Cuprinol and Cellusan) — Simsbury

Press Papers
Case Brothers Inc — Manchester

Presses
Farrel-Birmingham Company Inc (Hydraulic) — Ansonia
Henry & Wright Div of Emhart Manufacturing Company — Hartford

Presses—Molding
Standard Machinery Co The (compression and transfer molding, automatic and semi-automatic) — Mystic

Presses—Power
Waterbury Farrel Foundry & Machine Co The — Waterbury

Pressure Vessels
Norwalk Tank Co Inc The (unfired to ASME Code Par U 69-70) — South Norwalk
Whitlock Manufacturing Co The — Hartford

Printing
Case Lockwood & Brainard A Division of Connecticut Printers Inc — Hartford
Finlay Brothers — Hartford
Heminway Corporation The — Waterbury
Hunter Press — Hartford
Lehman Brothers Inc — New Haven
Taylor & Greenough Co The — Wethersfield
T B Simonds Inc — Hartford
A D Steinbach & Sons — New Haven
The Walker-Rackliff Company — New Haven

Printing Machinery
Banthin Engineering Co (automatic) — Bridgeport
Thomas W Hall Company — Stamford

Printing Rollers
Chambers-Storck Company Inc The (engraved) — Norwich

Production Control Equipment
United Cinephone Corporation — Torrington

Production Welding
Consolidated Industries — West Cheshire

Profilers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Propellers—Aircraft
Hamilton Standard Div United Aircraft Corp (propellers and other aircraft equipment) — Windsor Locks

Protective Coatings
Harrison Company The A S (Waxes) — South Norwalk

Publishers
O'Toole & Sons Inc T — Stamford

Pumps
Yale & Towne Mfg Co The — Stamford

Pumps—Small Industrial
Eastern Industries Inc — New Haven

Pump Valves
Colt's Manufacturing Company — Hartford

Punches
Hoggson & Pettis Mfg Co The (ticket & cloth) 141 Brewery St — New Haven

Putty Softeners—Electrical
Fletcher Terry Co The — Box 415 Forestville

Pyrometers
Bristol Co The (recording and controlling) — Waterbury

Radiation-Finned Copper
Bush Manufacturing Co — West Hartford
G & O Manufacturing Company The — New Haven
Vulcan Radiator Co The (steel and copper) — Hartford

Radiators—Engine Cooling
G & O Manufacturing Co — New Haven

Rayon Staple Fiber
Hartford Rayon Corp The — Rocky Hill

Reamers
O K Tool Co Inc The (inserted tooth) 33 Hull St — Shelton
Pratt & Whitney Div Niles-Bement-Pond Co (All types) — West Hartford

Recorders
Bristol Co The (automatic controllers, temperature, pressure, flow, humidity) — Waterbury

Reduction Gears
Farrel-Birmingham Company Inc — Ansonia
Snow-Nabstedt Gear Corp The — New Haven

Refractories
Howard Company — New Haven
Mullite Refractories Company The — Shelton

Refrigeration
Bowser Technical Refrigeration Div Bowser Inc (high altitude, low temperature) — Terryville

Regulators
Norwalk Valve Company (for gas and air) — South Norwalk
Sorensen & Company Inc — Stamford

Remote Control Wiring
General Electric Company — Bridgeport

Resistance Wire
C O Jelliff Mfg Co The (nickel chromium, copper nickel, iron chromium, aluminum) — Southport
Kanthal Corporation The (Kanthal A-1, A, D, DS) — Stamford

Respirators
American Optical Company Safety Division — Putnam

Retainers
Hartford Steel Ball Co The (bicycle & automotive) — Hartford

Riveting Machines
Grant Mfg & Machine Co The — Bridgeport
H P Townsend Manufacturing Co The — Elmwood
L-R Mfg Div of The Ripley Co — Torrington
Raybestos Div of Raybestos-Manhattan Inc The (brake service equipment) — Bridgeport

(Advt.)

Tubes—Collapsible Metal
Sheffield Tube Corp The — New London

Tubing
American Brass Co The (brass and copper) — Waterbury
Bridgeport Brass Company (brass and copper) — Bridgeport
G & O Manufacturing Co (finned) — New Haven
Scoville Manufacturing Company (Brass and Copper) — Waterbury 91

Tubing—Flexible Metallic
American Brass Co Metal Hose Branch — Waterbury

Tubing—Heat Exchanger
American Brass Company The — Waterbury
Scovill Manufacturing Company — Waterbury 91

Tumbling Equipment & Supplies
Tumbling Sales & Service Company — Greenwich

Tumbling Service
Tumbling Sales & Service Company, Esbec Tumbling Division — Meriden

Typewriters
Royal Typewriter Co Inc — Hartford
Underwood Corporation — Hartford

Typewriters—Portable
Royal Typewriter Company Inc — Hartford
Underwood Corporation — Hartford

Typewriter Ribbons and Supplies
Royal Typewriter Company Inc — Hartford
Underwood Corporation — Hartford and Bridgeport

Underclearer Rolls
Sonoco Products Co (Climax-Lowell Div) — Mystic

Vacuum Bottles and Containers
American Thermos Bottle Co — Norwich

Vacuum Cleaners
Electrolux Corporation — Old Greenwich
Spencer Turbine Co The — Hartford

Valves
Norwalk Valve Company (sensitive check valves) — South Norwalk

Valve Discs
Colt's Manufacturing Company — Hartford

Valves—Automobile Tire
Bridgeport Brass Company — Bridgeport

Valves—Radiator Air
Bridgeport Brass Company — Bridgeport

Valves—Relief & Control
Beaton & Cadwell Mfg Co — New Britain

Valves—Safety & Relief
Manning Maxwell & Moore Inc — Stratford

Vanity Boxes
Bridgeport Metal Goods Mfg Co — Bridgeport

Varnishes
Baer Brothers — Stamford
Staminite Corp The — New Haven

Velvets
American Velvet Co (owned and operated by A Wimpfheimer & Bro Inc) — Stonington
Leiss Velvet Mfg Co Inc The — Willimantic
Velvet Textile Corporation The (Velveteen) — West Haven

Venetian Blinds
Findell Manufacturing Company — Manchester
Jennings Company The S Barry — New Haven
New England Shade & Blind Co Inc — Durham

Ventilating Systems
Colonial Blower Company — Plainville

Vertical Shapers
Pratt & Whitney Div Niles-Bement-Pond Co — West Hartford

Vibration Isolation Mountings
MB Manufacturing Company Inc The (for truck engines, aircraft, engine mountings, special machinery) — New Haven

Vibration Testing Equipment
MB Manufacturing Company Inc The — New Haven

Vibrators—Pneumatic
New Haven Vibrator Company (industrial) — New Haven

Vises
Charles Parker Co The — Meriden
Fenn Manufacturing Company The (Quick-Action Vises) — Hartford
Vanderman Manufacturing Co The (Combination Bench Pipe) — Willimantic

Washers
American Felt Co (felt) — Glenville
Auburn Manufacturing Company The (all materials) — Middletown
Blake & Johnson The (brass, copper & non-ferrous) — Waterville

Washers (Continued)
Clark Brothers Bolt Co — Milldale
Plume & Atwood Mfg Co The (brass & copper) — Waterbury
Raybestos Div of Raybestos-Manhattan Inc (the clutch washers) — Bridgeport
J H Rosenbeck Inc — Torrington
Saling Manufacturing Company (made to order) — Unionville
Sessions Foundry Co The (cast iron) — Bristol

Washers—Felt
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Washing Machines—Electric
General Electric Company — Bridgeport

Watches
E Ingraham Co The — Bristol
United States Time Corporation The — Waterbury

Water Heaters
Whitlock Manufacturing Co The (instantaneous & storage) — Hartford

Water Heaters—Electric
Bauer & Company Inc — Hartford

Water Heaters—Gas or Kerosene
Holyoke Heater Corp of Conn Inc — Hartford

Waterproof Dressings for Leather
Viscol Company The — Stamford

Waxes
Harrison Company The A S (and other protective coatings) — South Norwalk

Waxes—Floor
Fuller Brush Co The — Hartford

Wedges
Saling Manufacturing Company (hammer & axe) — Unionville

Welding
Farrel-Birmingham Company Inc — Ansonia
G E Wheeler Company (Fabrication of Steel & Non-Ferrous Metals) — New Haven
Industrial Welding Company (Equipment Manufacturers—Steel Fabricators) — Hartford
Porupine Company The — Bridgeport

Welding—Lead
Storts Welding Company (tanks and fabrication) — Meriden

Welding Rods
American Brass Company The — Waterbury
Bristol Brass Co The (brass & bronze) — Bristol

Wheels—Industrial
George P Clark Co — Windsor Locks

Wicks
Auburn Manufacturing Company The (felt, asbestos) — Middletown
Holyoke Heater Corp of Conn Inc — Hartford
Raybestos Div of Raybestos-Manhattan Inc (the oil burner wicks) — Bridgeport
Russell Mfg Co The — Middletown

Window & Door Guards
Hartford Wire Works Co The — Hartford
Smith Co The John P — New Haven

Window Shades
New England Shade & Blind Co Inc — Durham

Wiping Cloths
Federal Textile Corporation — New Haven

Wire
American Brass Company The — Waterbury
American Steel & Wire Div of U S Steel — New Haven
Atlantic Wire Co The (steel) — Branford
Bartlett Hair Spring Wire Co The (hair spring) — North Haven
Bridgeport Brass Company (brass and silicon bronze) — Bridgeport
Bristol Brass Corp The (brass & bronze) — Bristol
Driscoll Wire Co The (steel) — Shelton
Hudson Wire Co Winsted Div (insulated & enameled magnet) — Winsted
Platt Bros & Co The (zinc wire) P O Box 1030 — Waterbury
Plume & Atwood Mfg Co The (brass, bronze, nickel silver) — Thomaston
Scovill Manufacturing Company (Brass, Bronze and Nickel Silver) — Waterbury 91

Wire and Cable
General Electric Company (for residential, commercial and industrial applications) — Bridgeport

Wire Arches & Trellises
Hartford Wire Works Co The — Hartford
John P Smith Co The 423-33 Chapel St — New Haven

Wire Baskets
Rolock Inc (Industrial—for acid, heat, degreasing) — Fairfield
Wiretex Mfg Co Inc (Industrial, for acid, heat, treating and degreasing) — Bridgeport

Wire Cable
Bevin-Wilcox Line Co The (braided) — East Hampton

Wire Cloth
Hartford Wire Works Co The — Hartford
C O Jelliff Mfg Co The (all metal, all meshes) — Southport
Pequot Wire Cloth Co Inc — Norwalk
Rolock Incorporated — Fairfield
Smith Co The John P — New Haven

Wire Drawing Dies
Waterbury Wire Die Co The — Waterbury

Wire Dipping Baskets
Hartford Wire Works Co The — Hartford
John P Smith Co The 423-33 Chapel St — New Haven

Wire Formings
Autoyre Co The — Oakville
G E Prentice Mfg Co The — Kensington
Master Engineering Company — West Cheshire
North & Judd Manufacturing Co — New Britain
Verplex Company The — Essex

Wire Forms
Bristol Spring Manufacturing Co — Plainville
Colonial Spring Corporation The — Hartford
Connecticut Spring Corporation The — Hartford
Foursome Manufacturing Co — Bristol
Humason Mfg Co The — Forestville
New England Spring Mfg Co — Unionville
Templeman Co D R — Plainville
Wallace Barnes Co The Div Associated Spring Corp — Bristol

Wire Goods
American Buckle Co The (overall trimmings) — West Haven
Patent Button Co The — Waterbury
Scovill Manufacturing Company (To Order) — Waterbury 91

Wire Partitions
Hartford Wire Works Co The — Hartford
John P Smith Co The 423-33 Chapel St — New Haven

Wire Products
Clairglow Mfg Company — Portland
Plume & Atwood Mfg Co The (to order) — Waterbury

Wire Reels
A H Nilson Mach Co The — Bridgeport

Wire Rings
American Buckle Co The (pan handles and tinners' trimmings) — West Haven
Templeman Co D R — Plainville

Wire Rope and Strand
American Steel & Wire Div of U S Steel — New Haven

Wire Shapes
Bridgeport Chain & Mfg Co — Bridgeport

Wire—Specialties
Andrew B Hendryx Co The — New Haven

Wires and Cable
Rockbestos Products Corporation (all asbestos, mining, shipboard and appliance applications) — New Haven

Wooden Boxes
Wallingford Planing Mill Co Inc — Yalesville

Wood Handles
Salisbury Cutlery Handle Co The (for cutlery & small tools) — Salisbury

Wood Scrapers
Fletcher-Terry Co The — Forestville

Woodwork
C H Dresser & Sons Inc (Mfg all kinds of woodwork) — Hartford
Hartford Builders Finish Co — Hartford

Woodworking
Contemporary Classics Inc (fine cabinet work and furniture) — Stamford
Local Industries Inc — Lakeville

Woven Felts—Wool
Chas W House & Sons Inc (Mills & Cutting Plant) — Unionville

Yarns
Hartford Spinning Incorporated (Woolen, knitting and weaving yarns) — Unionville
Aldon Spinning Mills Corporation The (fine-woolen and specialty) — Talcottville
Ensign-Bickford Co The (jute carpet) — Simsbury

Zinc
Platt Bros & Co The (ribbon, strip and wire) P O Box 1030 — Waterbury

Zinc Castings
Newton-New Haven Co Inc — 688 Third Ave West Haven

(Advt.)

Industrial Relations Law

(Continued from page 43)

"bumping" another member and taking a job without clearance from the union. The company later sought clearance from the union to employ this individual but was told by the union secretary that he would never again clear this individual for a position with that company, and consequently the employee was unable to obtain work with that employer.

The third case involved a complaint against the company because it entered into an agreement with the union granting retroactive wage increases and vacation payments to employees who were members of the union while refusing such benefits to other employees because they were not union members. In this particular case it is also interesting to note that the Supreme Court mentioned the agreement provided for a closed shop, restricting employment by the company to members of the union but permitting employment by the company of non-union employees pending such time as the union could supply union employees and observed, "This provision was necessary because the union was closed, ordinarily admitting to membership only first-born legitimate sons of members." However, the complaint in the case before the court merely involved a refusal by the company to make retroactive pay and vacation payments to non-union employees on the ground that it was not bound to do so under the union contract.

In all three of these cases the Supreme Court held that there was a violation of the provision of the Taft-Hartley Act quoted above.

Among other things, the arguments were advanced that it was necessary to prove the employer's motive was to encourage or discourage membership by means of discrimination. The Supreme Court recognized that the employer's purpose in discriminating is controlling but held that ". . . specific evidence of intent to encourage or discourage is not an indispensable element of proof of violation . . .," and observed, "Obviously, it would be gross inconsistency to hold that an inherent effect of certain discrimination is encouragement of union membership but that the Board may not reasonably infer such encouragement."

The following statements by the court sum up the basic questions answered by the decision.

"In past cases we have been called upon to clarify the terms 'discrimination' and 'membership in any labor organization.' Discrimination is not contested in these cases: involuntary reduction of seniority, refusal to hire for an available job, and disparate wage treatment are clearly discriminatory. But the scope of the phrase 'membership in a labor organization' is in issue here. Subject to limitations, we have held that phrase to include discrimination to discourage participation in union activities as well as to discourage adhesion to union membership.

"Similar principles govern the interpretation of union membership where encouragement is alleged. The policy of the Act is to insulate employees' jobs from their organizational rights. Thus Sections 8 (a)(3) and 8 (b)(2) were designed to allow employees to freely exercise their right to join unions, be good, bad, or indifferent members, or abstain from joining any union without imperiling their livelihood. . . . Lengthy legislative debate preceded the 1947 amendment to the Act which thus limited permissible employer discrimination. This legislative history clearly indicates that Congress intended to prevent utilization of union security agreements for any purpose other than to compel payment of union dues and fees. . . . No other discrimination aimed at encouraging employees to join, retain membership, or stay in good standing in a union is condoned."

The J. L. Lucas Story

(Continued from page 10)

to permit one operator to handle several machines at the same time. Since the original manufacturer never did equip these machines with the required stop, Lucas engineers designed a special setup of stops which has proven extremely accurate.

The Gyromat Corporation, a division of J. L. Lucas & Son, Inc., has designed and is now marketing an industrial finishing unit for production-line use, adaptable to all types of lacquers, enamels, etc. This unit utilizes a mechanical means of atomization through high speed rotors and eliminates the necessity of air compressors, exhaust systems and large spray booths. This unit also allows for the collection of overspray and a great saving in material loss is realized.

Advertising Index

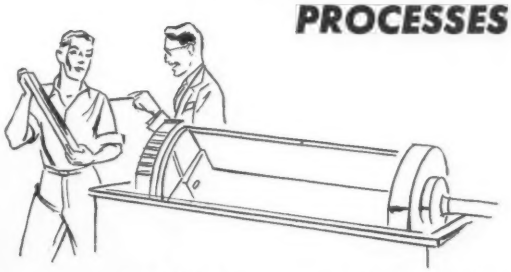
Ætna Life Affiliated Companies	30
Allen, Russell & Allen	24
American Appraisal Co.	40
American Associates Mfg. Corp.	43
American Microfilming Co.	46
Auburn Mfg. Co.	49
Ballard Oil Co., Inc.	Outside Back Cover
Barney's	40
Bristol Co., The	22
Champlin Box Co., The	24
Chase Brass & Copper Co.	32
Colonial Blower Co.	37
Connecticut Advertising Services	52
Conn. Medical Service	29
Connecticut Printers, Inc.	3
Connecticut Utility Companies	44
Corrigan, Inc., J. C.	45
Detroit Steel Corp.	48
Dolge Co., C. B.	38
Dowd, Wylie & Olson, Inc.	2
Faught Co., The	38
Federal Textile Corporation	38
Fuller Brush Co., The	27
Fritzell Foundry & Casting Co.	39
Gair Company, Robert	33
Graphic Arts Co., Inc., The	38
Hall Company, Inc., Thomas W.	43
Hartford National Bank & Trust Co.	35
Hartford Special Machinery Co., The	24
Holm-Hansen, O.	31
Howard Co., The	51
Jones & Company, Inc., T. A. D.	4
Kasden & Sons, Inc., H.	Inside Front Cover
Love, Ralph H.	25
Lucas, Gertrude	32
Manufacturers Assoc. of Conn., Inc.	2
Mills, Inc., H. J.	51
Morrissey & Cheney	51
Muchemore Associates, S. E.	32
New Haven Board & Carton Company, The	23
Nickson Tool Sales Co.	34
Nutmeg Crucible Steel Co., The	32
Plocar Company, John J.	31
Seymour Manufacturing Co., The	Inside Back Cover
Sherman Transfer Co., Roger	30
Smith Co., W. T.	30
Souther Engineering Co., The Henry	24
Southern New England Telephone Co.	2
Sponge Rubber Products Co.	28
Swan Tool & Machine Co., The	24
Taylor & Greenough Co., The	39
Tel-Rad Co.	41
Travelers Insurance Co., The	47
Troland, Inc.	42
Tyler Equipment Corp.	26
Veeder-Root, Inc.	21
Vreeland, K. M.	36
Winship, Richard S.	32
Wittstein, Jack	24, 32, 43
Wiremold Co., The	37

THE SEYMOUR LINE AT A GLANCE

NICKEL ANODES

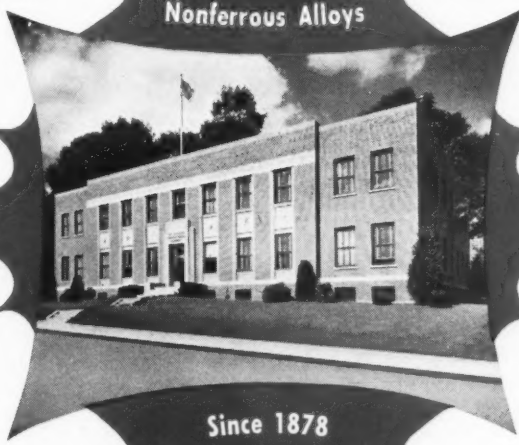
Uneven corrosion and release of foreign matter and excessive "sludge" militate against, often prevent, formation of an even, integrated plate of good color. Such "little foxes" are more or less traceable to imperfect grain structure in the anode. Seymour "Controlled Grain" Nickel Anodes have homogeneous grain. They are made of virgin nickel poured under accurate pyrometric control. As a result, Seymour Anodes corrode evenly, eliminate many headaches.

BRIGHT NICKEL PROCESSES



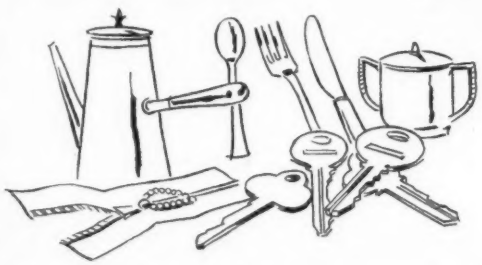
Available for warm or cold plating baths, Seymour Bright Nickel Processes accelerate work and improve results. Write for complete information.

Nonferrous Alloys



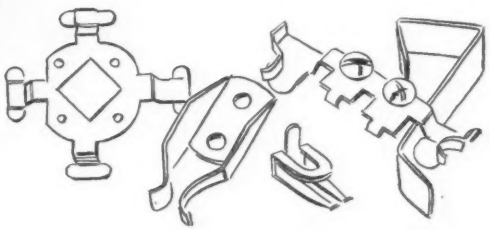
Since 1878

NICKEL SILVER



Seymour Nickel Silver is an ideal silvery white base for plated ware, a smooth-flowing alloy for spun and drawn articles. Free-cutting, non-corrodible, it is excellent for screw-machine products. It is widely used in the manufacture of keys, zippers, musical instruments, fine plated silverware, surgical instruments, fishing tackle, spectacle frames, etc.

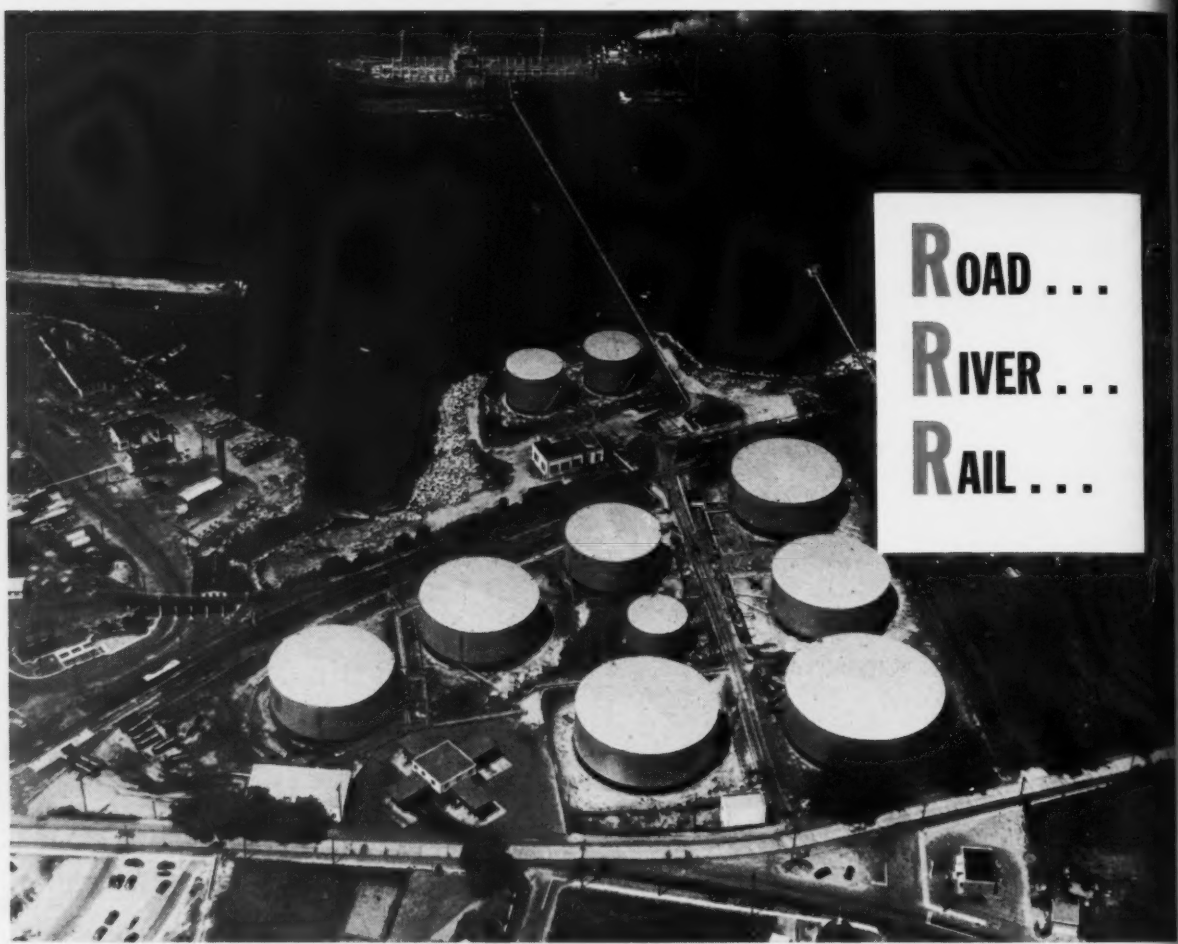
PHOSPHOR BRONZE



The qualities of Seymour Phosphor Bronze—toughness, resiliency, and resistance to fatigue and corrosion—make this wonder metal ideal for a wide bracket of spring, electrical, and machined parts. Its range of grades and tempers gives the designer a selection of alloys to fit the job. Glad to furnish technical data and samples.

THE SEYMOUR MANUFACTURING COMPANY • SEYMOUR, CONNECTICUT, U.S.A.

THREE "R's" OF INDUSTRIAL HEATING . . .



There's a ceaseless flow of BALCO BUNKER "C" to serve YOU!

- There are no shortages, no delays, no cold days when you rely on Balco Bunker "C." Vast storage tanks in two great terminals receive an uninterrupted flow of this clean, low-cost fuel—Ballard's modern delivery fleet speeds all the Bunker "C" you want—whenever you need it—wherever you want it.

- Consider Balco Bunker "C" now—compare its efficiency and economy—discover why, dollar for dollar, Balco Bunker "C" is your best heating buy.

- For prompt, experienced advice on immediate heating problems or long range heating requirements, call on Balco's trained engineers—phone Hartford JA 9-3341 or write Ballard at Box 1078, Hartford.

The BALLARD OIL Co.

QUALITY SERVICE BALCO FUEL OILS

HARTFORD, CONNECTICUT